या कृप्नेतु तुसार हार धर्मला, या शुभ्र वस्त्रावृत्ता।
या वीणा वर दण्ड मण्डलरता, या खेत पट्टावना।
या व्रहाच्युन शंकर प्रभुतिनभ, वैवेक सदा चौप्लिता।
सा मां पातु सरस्वती भगवती, निशेष जाड़च्या पहा।
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In this volume, the Institute of Technology, Nirma University retraces the journey of an endeavour undertaken in the domain of higher and technical education beginning as Nirma Institute of Technology in the year 1995 with an affiliation to Gujarat University and as the first self-finance engineering college in the state of Gujarat.

At this juncture of completion of 25 years of the Institute of Technology, Nirma University (ITNU) on October 03, 2020, we celebrate it as the Silver Jubilee of the ITNU. This reminds us of our growth, efforts and dedication towards our goal to achieve excellence in Higher and Technical Education.

It invites us to have a look at the philosophy and thrust behind every single decision that has contributed to the image which the institute holds today, not only in Gujarat but also in the whole country and abroad. It also provides us a glimpse of the vision of the stalwarts who laid the foundation of this prestigious institution with a dedication and social commitment to provide an institution having world class campus and facilities.

This booklet is our sincere attempt to retreat, re-tread and introspect on our performance so far, by looking at our constant investment of knowledge, labour and finance witnessed by the stakeholders, the milestones we have crossed from time to time. This exercise, we believe, will lead us to know the extent to which we have succeeded in accomplishing our vision, mission and value framework. The challenge now is to sustain our position by consolidating our potential and to move ahead to the next big milestone.

We invite you to invest some time and take a few steps along with us to travel through our journey of pursuing excellence.
Institute of Technology, Nirma University has a rich tradition of great achievements since its inception. I acknowledge and appreciate each stakeholder who has stood by it and contributed positively to its journey of twenty five years.

Over these years, I have been heartened by the vitality and energy of the place, the high quality of faculty and students and their commitment to exploring the technical fields with a zeal unparalleled.

Its endeavours have paid high dividends and the institute has become a frontrunner in providing high-quality education that is reaffirmed by the accreditation bodies, like NAAC and NBA. The institute has continuously motivated the students to excel in the studies and to contribute to the society. Further, it has encouraged the faculty to conduct high-quality research and to make an impact on the academe. Together faculty and students have used their knowledge for the betterment of humankind. With each passing year, we are committed to provide the best in the field of Engineering to our students and we expect its impact to keep growing in ways we have not yet imagined.

My sincere wishes to everyone involved in its success story. I hope we keep moving forward and making this world a wonderful place to live in with our innovations and inventions. Let us work together in unison, each doing his part joyously, to make the institute’s light shine in the coming years even more resplendently.

Dr Karsanbhai K Patel
President, Nirma University
I feel honoured and privileged to convey my heartiest congratulations to the team of Institute of Technology, Nirma University on the occasion of its Silver Jubilee. We all have come a long way under the stewardship of Padmashri Dr Karsanbhai K. Patel to make the journey glorious by contributing to the true spirit of our vision through outright and noble activities.

Institute has made a positive contribution in establishing the name and fame of Nirma University on the global map. All the stakeholders of the Institute have successfully contributed to propagate the philosophy of the University through their exemplary work in the field of engineering by using the latest innovations and technology in the right manner. I am also happy to note that since its inception the Institute has left no stone unturned in making us proud and I await many new achievements unfolding in the coming years.

I commend once again all the stakeholders and hope that we continue our stride in the same surefooted way. I look forward to the continued support from all concerned to take this organisation to greater heights in the future.

Shri K K Patel
Vice President, Nirma University
Heartiest congratulations to the Institute of Technology, Nirma University on the occasion of its silver jubilee celebration. This institute is the flagship of the Nirma University, Ahmedabad. The institute has been a trend setter and a trail blazer of engineering education in the country. It has made a significant impact on the society. Its alumni can be found in leading positions in the different parts of the world and in all prominent engineering and technology organisations. Further, many alumni have chosen the path of entrepreneurship and created jobs and wealth for the society. Furthermore, the institute has produced a large number of doctorates who are serving various institutions.

The institute is known for the high quality of education and personality development of future citizens. Its student centricity has assured that the graduates are readily accepted by the industry and are able to provide leadership in the different walks of life. Competence and commitment of faculty in this matter are par excellence. Students are provided with numerous opportunities to realise their potential and follow their pursuits. They are also encouraged to hone their research skills through minor and major projects. Some join senior professors in their research projects and author research articles along with them.

The institute has prepared itself to meet the educational challenges posed by the Industry 4.0. Its focus on critical and analytical skills, creativity and innovation, technology, teamwork and collaboration, and internationalisation has resulted in continuous review and revision of various curricula. Importantly, the institute has emphasised on research at undergraduate, postgraduate and doctoral levels. Its collaboration with several research organisations has resulted in meaningful projects.

I am sure that the institute would continue to move from strength to strength. With its committed and creative faculty, it would set new benchmarks of academic excellence.

I wish the Institute of Technology success and academic excellence.

Anup Kumar Singh, PhD
Director General, Nirma University
In 1995, we, the Institute of Technology started with a dream to have programmes in engineering which could produce high-quality engineers who are chiselled to be sensitive, be the torch-bearers to the society and are desired by the industry. True to this dream we today stand tall and look proudly at the arduous and glorious journey of twenty five years.

On this special occasion of ITNU’s Silver Jubilee year, I congratulate everyone for this achievement and wish all a continued success in our efforts towards making the institute a place where technology, discipline and values thrive together. The institute has in its 25 years of journey tasted many successes, the most important being accredited NAAC ‘A’ and the accreditation by the National Board of Accreditation (NBA). The institute has grown from strength to strength in the past twenty five years because of the outstanding calibre of its students, well-qualified faculty dedicated to teaching, research and excellent infrastructure. The institute takes pride in the fact that it has provided a learning environment that promotes excellence in academic and professional standards and has produced students who are responsible and technologically oriented. With pride, I recognize that the students of the institute are moulded with sound knowledge, experience, and training so that they can achieve greater heights both, at the academic level and the highly competitive global industrial market.

Felicitations to every member of this institute and thanks to the able leadership of our President Padmashri Dr Karsanbhai K. Patel, Vice President Shri K. K. Patel and the Director General Dr Anup K. Singh under whose stewardship we are flourishing and are gaining newer heights with each passing year.

Dr. Rajesh N. Patel
Director (I/c)
Institute of Technology
MESSAGE

I am pleased to know that the Institute of Technology, Nirma University - Ahmedabad is going to celebrate the Journey of 25 years as the Silver Jubilee celebration.

It is also a matter of pleasure that in a short span of 25 years, the Nirma University is recognized as one of the leading centre of higher education. The Institute of Technology emphasizes the all round development of its students. It aims at producing not only good professionals but also good and worthy citizen of a great country.

I hope, Silver Jubilee year will be the year of inspiration to plan for another glorious achievements. I am sure that the souvenir which is published on this occasion will provide significant informations to the students.

I wish your endeavour a great success.

(Acharya Devvrat)
Message

Technology transforms people's lives. From mitigating poverty to simplifying processes, ending corruption to providing better services, Technology is omnipresent. It has become the single-most important instrument of human progress.

- Narendra Modi

It is high time we start utilizing the latest technologies that will help the developmental process in gaining the most necessary momentum. Technology today is in true sense instrumental in creating a fusion with the human values and growth.

I am much pleased to learn that the Institute of Technology, Nirma University is celebrating the completion of 25 years of its inception 3rd October 2020 at Ahmedabad. I hereby, extend my best wishes to the Institute of Technology of Nirma University for the grand success of the event. I am sure the Souvenir being published to commemorate the event will be instrumental in bringing out new directions for all the faculties, administration staff and the Board of Directors of the Institute.

(Vijay Rupani)

To,
Shree K. K. Patel, Vice President,
Institute of Technology,
Nirma University,
Sarkhej-Gandhinagar Highway,
Ahmedabad–382481.
Email: vp@nirmauni.ac.in
Gujarat, a land of inspiration, is paving the way as a hub in higher education, branding with bonding must attain obvious importance. The care and concern for the youth in the country and the state is prime and their empowerment is attained by developing the skill, will and competence. Our topmost universities are witnessing their journey towards the goal to become the center of excellence in every branch of education.

The Institute of Technology, Nirma University completes 25 years of its contribution in providing quality world-class education. The management of the institute envisaged growth and the committed faculty members translated the vision into a mission. By the sincere working The Institute of Technology Nirma University obtaining highest honor in the field of Education.

I am happy to know that Institute of Technology, Nirma University while completing 25 years of its journey is publishing a document of dreams fulfilled. I extend my best wishes to all the stakeholders for its better progress and prospectus.

(Nitin Patel)
Shri Bhupendrasinh Chudasama
Education Minister
Gujarat State

Message

I am very glad to know that the Institute of Technology, Nirma University is going to complete its twenty-five years on 2nd October 2020. Dr Karsanbhai Patel had established Nirma Education and Research Foundation in 1994 and the efforts of Nirma Education and Research Foundation were converted in the legal format of Nirma University under the act passed by the Gujarat Legislative Assembly in 2003.

The Institute of Technology, Nirma University is an outcome of hard work and dedication of the management and the faculty who ensured to provide world-class professional education and facilities to the students in Gujarat. The Institute has gained reputation and secured place in the list of the top-class organizations in the country. I wish the Institute will maintain its value system and continue to focus on the society and nurture ethical human beings and nature.

I extend my warm greetings and felicitation to all those associated with this organization.

To,
Shri K. K. Patel
Vice President,
Nirma University
Ahmedabad.

(Bhupendrasinh Chudasama)
MESSAGE

I am happy to learn that the Institute of Technology, Nirma University will be completing 25 years of its establishment on October 03, 2020.

Education is the backbone of the progress of any nation. Being the first private engineering institute of the State, the Institute of Technology realizes its sense of duty for the overall progress of Gujarat State also through education in Engineering and Technology. I have learnt that the University too has expanded its wings in various fields of education viz. Science, Pharmacy, Management, Law, Architecture, Planning, and Design as per the societal needs and the Institute has fortified Gujarat State in the domain of higher technical education across the country.

I wish the Institute of Technology, Nirma University all the success!

[Anil Mukim]
MESSAGE

I am pleased to know that Nirma University of Science and Technology, Ahmedabad, will be completing 25 years of glorious service in the field of education in October, 2020 and the University is planning to celebrate its Silver Jubilee in October, 2020. Celebration of the Silver Jubilee Year of an institution is a historic occasion and marks the realization of dreams of the founding fathers of the institution. To commemorate this occasion, the institute is planning to publish a souvenir showcasing the 25 years' journey of the institution.

I extend my best wishes and greetings to the Management, President, Vice-President, Director, members of the Executive Council and Academic Council, teaching and non-teaching staff, the students, the alumni and well-wishers for joining hands in providing quality education. On this landmark occasion of their efforts, I congratulate them and wish the Silver Jubilee Celebration a grand success.

(Prof. D.P. Singh)

17th September, 2020
It is an immense pleasure for me to know that the Institute of Technology, Nirma University, Ahmedabad is celebrating Silver Jubilee and will be completing 25 years on October 3, 2020.

I am also very happy to know that Nirma University, Ahmedabad is bringing out a "Souvenir" to highlight the history, achievements and the activities of the Institute. The vital role being played by Nirma University in imparting education to undergraduates and postgraduates in various fields is worth appreciable. No doubt, with such sustained and devoted efforts, Nirma University has achieved many milestones over the years in the process of fulfilling its mandate of improving quality of education.

On this auspicious occasion of the Ceremony of Silver Jubilee of the University, I give my heart-felt best wishes to the Organizers and the participants for its grand success.

(Prof Anil D. Sahasrabudhe)
Anju Sharma, IAS  
Principal Secretary, Education Department  
Government of Gujarat

MESSAGE

It is quite heartening to learn that the Institute of Technology, Nirma University is celebrating the Silver Jubilee of its establishment on October 03, 2020.

I am glad to learn about the noteworthy contributions of the Institute in the field of education. The Institute has made a prominent position on the education map of Gujarat State through its vision and progressive efforts. I sincerely hope for long-lasting progress of the University in future with its best services to the education sector.

I wish all the best to administrators, teachers and students of the Institute.

(Anju Sharma)
At the outset, I am delighted to know that Institute of Technology, Nirma University has completed twenty-five years of its establishment and celebrating its silver jubilee anniversary this year on October 3, 2020. In the field of Engineering, Technology and Research, the institute stands apart in providing quality education to its students. The efforts of the institute are indeed paying fruition which is evident from the contributions in the form of innovations from your students and faculty members. The alumni of your university spread across the world have made not only their alma mater, but the state and country proud through their achievements.

An amalgamation of right skills, technical knowhow, attitude and a spirit of inquiry are the bedrock for innovation in any nation. I am confident that the pedagogy at Nirma would continue to focus on these aspects and help harness the full potential from the vast untapped opportunities.

Innovations in the fields of artificial intelligence, machine learning and robotics are the indeed of the need of the hour for our country. Innovators in these fields will go on to create more jobs and opportunities for our nation. The demand for engineers and data scientists is in itself an indication of this paradigm shift in the 21st century. I would urge you to keep up this spirit of innovation to truly make Atmanirbhar Bharat effective and meaningful.

I am also happy to know that the University has made significant offerings to Science and Technology through quality education and research in the span of last twenty-five years.

I would like to congratulate Institute of Technology, Nirma University and extend my best wishes to the Management, Faculty members and the Students and wish all the success in the future Academic Excellence.

(Hareet Shukla)
MESSAGE

I congratulate the Institute of Technology, VIT University for completion of five years of its establishment.

I should like to convey my warmest congratulations on the inauguration of the Institute. It is an inspiring initiative of the Institute that provides a platform to school students for showcasing their talent in robotics technology. I am confident that the Institute is following its vision and mission of making a difference in the future of IT and Engineering.

The area of technical education is one that attracts numerous aspiring students in the state of Gujarat. The contribution of the Institute in technical education by offering various engineering courses is remarkable. I wish that the Institute will continue to achieve new milestones in the future.

I extend my best wishes to all the faculty members of the Institute.

G. T. Pandya, IAS
MESSAGE

I am happy to know that Institute of Technology, Nirma University will be completing its 25 years on October 3, 2020 since its inception in 1995. I am also pleased to note that the university is ranked amongst the best in the State of Gujarat and has been maintaining its legacy of providing quality education to students with its highly competent faculties and academic infrastructure.

Space Applications Centre (SAC), gives special impetus on providing a collaborative research environment with academia in the form of various research programs including RESPOND etc. Nirma University is actively associated with SAC in these research programs and many of our colleagues are also enrolled in various academic programmes of the University. I am confident that this collaboration will contribute towards paving a strong foundation of academic research.

My best wishes to the entire fraternity of Institute of Technology, Nirma University, on its Silver Jubilee.

Place: Ahmedabad
Date: September 16, 2020

(D K Das)
September 22, 2020

Dr. Mehub R. Naik
Head, International Relations, Nirma University
Head, Centre for Entrepreneurship at Nirma University
Associate Professor, Department of Electronics & Communication Engineering, ITNU
Nirma University, Sarkhej-Gandhinagar Highway, Ahmedabad - 382 481, Gujarat, India

Dear Dr. Naik:

On this special occasion of celebrating the silver jubilee year of the foundation of the Institute of Technology, Nirma University, I congratulate all the stakeholders on their past achievements and wish all of you continued success in your efforts of producing not only good professionals, but also good and worthy citizens.

FAU-Nirma relation started almost in the foundation year of ITNU in 1995. Recognizing that exposure to high-tech education in developed countries is beneficial to students and faculty in a globally competitive environment, NIT signed the first-ever partnership agreement with FAU in 1995. This agreement provided for joint research, student and faculty exchanges and other programs with organizations such as the National Science Foundation, IBM, Siemens Business Systems and the South Florida Water Management District. I cherish the collaborative activities done over the last 25 years and am proud that the mutual relation has been stronger as the years pass by.

Again, wishing many congratulations on this auspicious day and expressing our commitment of the stronger collaboration over the years to come!

Sincerely,

Stella N. Batalama, Dean
College of Engineering & Computer Science
Florida Atlantic University

An Equal Opportunity/Equal Access Institution
Dear Director Dr R N Patel,

Our congratulations to the Institute of Technology at Nirma University on the completion of twenty five glorious years. Your journey has provided a larger segment of society with education. This is invaluable.

As a premier public university, Binghamton is dedicated to enriching the lives of people through education and knowledge discovery. Given the similarity of our goals, we (Nirma University and Binghamton University) signed an MoU four years ago. While we have been working together for just four short years, much has been accomplished in this relatively short time span. Our work together has currently culminated in establishing a collaborative “Center for Excellence in Data Science” at the Institute of Technology at Nirma University. This center serves as a catalyst that can further improve and enhance our academic collaboration.

On this special day commemorating the silver jubilee of the Institute of Technology, I congratulate the trustees, management, faculty members, staff, students and alumni, and wish them the very best in their academic endeavors.

Sincerely,

Donald G. Nieman
Executive Vice President for Academic Affairs and Provost
Professor of History
Binghamton University
Binghamton, New York 13902-6000
The Institute of Technology, Nirma University draws much of its inspiration and strength from its founder, Dr. Karsanbhai K. Patel, Chairman, Nirma Limited, and founder President of Nirma Education & Research Foundation and Nirma University.

Dr. Karsanbhai K. Patel has been conferred with Padmashri in 2010. He is also the recipient of the “Udyog Ratna” Award – 1990, “Gujarat Businessman” award - 1998, Ernst & Young “Lifetime Achievement” Award – 2006, “Sardar Vallabhbhai Patel Vishwa Pratibha Award - 2009”, The Baroda Sun “Lifetime Achievement” Award 2009 and “Chemtech Award of Hall of Fame”. Dr. Patel is renowned for his contribution to industrial development in the country. In the last 15 years, he has turned his attention to the growing challenges in education. This has perhaps been one of his most purposeful developments for the younger generation of the country.

Dr. Patel was awarded the Honorary Doctorate of Humane Letters by Florida Atlantic University for Business and Marketing acumen and philanthropy in 2001. He was also awarded Honorary D. Lit. by Devi Ahilya Vishwavidyalaya, Indore, in 2007. He was conferred Life Time Achievement Award by Gujarat Chamber of Commerce and Industry in 2019. Among the many social projects that he has initiated, Nirma Education and Research Foundation (NERF) is monumental of his commitment to society.

Dr. Patel firmly believes that to face global competition and to satisfy the growing need of quality professionals, an academic institution must constantly grow, innovate, build strength and strive to become self-reliant.
Institute of Technology, Nirma University was established by the initiative of Nirma Education and Research Foundation (NERF). The renowned industrialist and philanthropist Dr. Karsanbhai K. Patel, the founder of Nirma Group of Industries, established the NERF in 1994 with a view to promote and support higher education in India.

The NERF chaired by Dr. Karsanbhai K. Patel is a trust that crystallized his long cherished dream of providing world-class education and inculcating the spirit of social relevance among the young students of the country.

In the year 2003, the Government of Gujarat approved the proposal of the NERF to found Nirma University. As a result, Nirma University was established under a special act passed by the Gujarat State Legislative Assembly and all the institutions established by the NERF became the constituents of the University.

The NERF is equally committed to school education. It strongly believes in the fact that a strong foundation is a prerequisite for education. With this philosophy, it runs two schools ‘Nirma Vidyavihar’ at Bodakdev and Chharodi in Ahmedabad, where the emphasis is laid on to provide value-based education clubbed up with innovative educational practices.
Established in the year 2003, the Nirma University, Ahmedabad is a research-oriented, student-centric, multidisciplinary, not-for-profit state private university. Within a short period of its existence, it has emerged as a nationally renowned higher education institution. The University and its constituent institutes have received high rankings from different ranking agencies.

Nirma University is duly recognised by the University Grants Commission (UGC) under Section 2 (f) of the UGC Act. The University is accredited by the National Assessment and Accreditation Council (NAAC). The University is a member of the Association of Indian Universities (AIU) and the Association of Commonwealth Universities (ACU).

Dr Karsanbhai K Patel, Chairman, Nirma Group of Industries and Nirma Education and Research Foundation (NERF), is the President of the Nirma University. Under his leadership, the University is expanding every passing year and moving from strength to strength.

Spread across the sprawling lush green 115-acre campus, the University has a host of institutes, departments and centres.

The University consists of Faculty of Technology, Faculty of Management, Faculty of Law, Faculty of Pharmacy, Faculty of Science, Faculty of Architecture and Planning, Faculty of Commerce, Department of Design and Faculty of Doctoral Studies.

The constituent institutes being run under these faculties are Institute of Technology, Institute of Management, Institute of Law, Institute of Pharmacy, Institute of Science, Institute of Architecture and Planning, Institute of Commerce, and Department of Design.

The undergraduate, postgraduate and doctoral level programmes offered by these institutes are rated highly by accreditation agencies, industry, business magazines and students.
“If we value the search of knowledge, we must be free to chase wherever that search may lead us.”
- Dr. Karsanbhai K. Patel

Around the 1980s the concept of self-financed institutions had developed in some parts of the country, particularly for professional courses in higher education. However, this concept had not taken roots in the State of Gujarat till 1993 and it was difficult for the State Government to meet with the massive demand of society in the State of Gujarat in the field of higher education in professional courses. The intake of professional courses in higher education in the 1990s like Engineering, Pharmacy, etc. was limited to around 3500 against the total intake of more than 15,000 each in the other states, particularly in the states of South India. Because of this, students could not get admission in Gujarat and used to migrate to other states’ self-financed institutes by paying huge amount of fees. This resulted in hardships to students of Gujarat.
To remedy this situation, in the beginning of the 1990s, the Government of Gujarat decided to explore the possibility of having a policy which will help prominent organizations to establish self-financed professional institutes of higher education in the State of Gujarat. The Govt. of Gujarat ultimately agreed to accept in principle to allow establishing self-financed institutes with the help of corporates to start with. In the meantime, Dr. Karsanbhai K. Patel Chairman, Nirma Limited also had a similar line of thinking that having received a lot from society it was time that he should give back to society its due by establishing an institute of professional courses with world-class facilities to the youth in the State of Gujarat. Having this matching of thinking and ideas, Dr. Karsanbhai K. Patel took up the challenge of encouraging private participation in the field of higher education in the professional fields. When the idea was conceptualized, he emphatically stressed on quality and only on its assurance as a mission he would be ready to fund. As a result of this exercise, the Nirma Education and Research Foundation (NERF) was established in 1994 as a trust. To start with, it proposed to establish Nirma Institute of Technology catering to the needs of imparting quality education at Under-graduate level in engineering and technology. The proposal was sent to the Govt. of Gujarat and the A.I.C.T.E. and both approved it. Gujarat University decided to give affiliation to this institute. However, because of some technical issues, the scheme did not materialize in 1994. After resolving the issues, the Institute of Technology was established in 1995.
In the entire exercise Dr. Karsanbhai K. Patel and his team along with Prof. N.V. Vasani played a very important role in the conceptualization of establishing the first self-financed institute for professional studies providing quality education. Thereafter, in 1996, the Institute of Management was established with full academic autonomy given by the AICTE for running the post-graduate diploma programme.

Because of the dynamic leadership and guidance of Dr. Karsanbhai K. Patel, with dedicated inputs from Shri Ambubhai M. Patel, Prof. N. V. Vasani and their team under Nirma Education & Research Foundation, the institutes could make a mark in society and gain reputation at a fast pace among the people. The first choice of the students from Gujarat for admission has always been the Nirma Institutes. The management spared no efforts in creating world-class infrastructure on the campus. Only after having initiation of self-financed institute by the NERF, other trusts or societies also came in with similar proposals and now the fruits are available to the youth of Gujarat by having more and more self-financed institutes and universities in many fields of higher education.
Institute of Technology, Nirma University

Vision

Shaping a better future for mankind by developing effective and socially responsible individuals and organisations

Mission

Institute of Technology emphasizes the all-round development of its students. It aims at producing not only good professionals but also good and worthy citizens of a great country, aiding in its overall progress and development.

It endeavours to treat every student as an individual, to recognize their potential and to ensure that they receive the best preparation and training for achieving their career ambitions and life goals.

Quality Statement

To develop high quality professionals who reflect and demonstrate values that the University stands for, through innovation and continuous improvement in facilitation of learning, research and extension activities.

Value Framework

- Student Centricity
- Contribution to Society
- Quest for Academic Excellence

Departments have also identified their Vision and Mission to achieve the excellence.
The Institute of Technology, Nirma University, earlier known as Nirma Institute of Technology, started in the year 1995 by Nirma Education and Research Foundation (NERF), was the first self-financed engineering college in Gujarat. Within 25 years of inception, Institute of Technology is a leading hub of education, offering multidisciplinary undergraduate, postgraduate and Ph.D. programmes in engineering. The institute is ranked among the top 25 self-financed engineering colleges of India in the survey conducted by various rating agencies. The faculty members and students of the Institute have won many prestigious awards and brought laurels to the institute.

The Institute is located in peaceful and serene surroundings of Ahmedabad city in the heart of Gujarat. The Institute provides a disciplined, and conducive environment for reflection, repose and research. The ardent pursuit of knowledge by the young aspirants leads to knowledge generation and innovative solutions for the community and society. And, to give wings to these aspirations, the Institute presently has more than 4500 students and 230 faculty members, making relentless efforts for making a mark with their presence globally. The campus vibrates with a host of activities like international conventions, symposia, conferences, student competitions, conclaves, short-term industry relevant programs, cultural activities and many more.

The Institute is embarking on an ambitious plan focused on “Growth in Excellence” and creating the “Societal Engineer”. The Institute is now aiming to emphasize on Outcome Based Education (OBE), Experiential Education (through Project Based Learning), research in thrust areas with translational impact, and the creation of engineers as leaders in society.

It has offered a dynamic curriculum, robust and talented pool of faculty members, and state of art infrastructure in all the departments. It is well known for imparting quality education, active research and also in nurturing students for holistic development – achieved through Students’ Engagement Tools like continuous evaluation, blended learning, active use of MOOCs, credit based systems, departmental electives, institute electives, industrial visits, industrial projects, expert lectures, soft skills development, critical thinking training, yoga classes and many more.

The Institute gives ample opportunities to its students and strives to equip the students in terms of providing the skills, ability and knowledge for life-long learning. Some of the major strengths of the Institute include:
• Excellent local and regional reputation along with well-established national recognition
• Young, dynamic and dedicated faculty and staff members aligned with institutional goals
• Learner centric approach
• Focus on the synergy between teaching and all-round development of the students
• Meritorious students with geographical diversity in undergraduate programmes
• Well placed closed-loop feedback system for curriculum development encompassing all the stakeholders
• Globally compatible academic credit system with an emphasis on continuous evaluation
• Transparent management policies with well-defined procedures
• Well-disciplined conducive academic environment and ambience
• ICT usage for enhancing various academic accomplishments
• Active linkages with nearby industries and research organizations
• Continuous emphasis on faculty and staff development
• Strong commitment and dedicated efforts towards continuing education and pedagogy.

Accreditation

The Institute of Technology is a constituent Institution of Nirma University. Nirma University and its constituent Institutions are accredited by National Assessment and Accreditation Council (NAAC), an autonomous institution of the University Grants Commission, Government of India with 'A' grade.

This accreditation status indicates that Nirma University and all its constituent Institutions meet the standards of quality as set by NAAC, in terms of its performance related to educational processes and outcomes; covering the curriculum, teaching-learning, evaluation, faculty, research, infrastructure, learning resources, organisation, governance, financial well-being and student service.

Institute of Technology, Nirma University takes pride in announcing that all its Undergraduate Programmes are accredited by the National Board of Accreditation (NBA) under Tier-I.
Nirma Institute of Technology (NIT) is the first of its kind quality engineering education college in the state of Gujarat. Initially, it was affiliated to Gujarat University.

**Progress path of NIT: (1995-2003)**

It started with a total intake of 240 students in five different engineering disciplines. Initially, the institute had 50% free seats and 50% payment seats with higher tuition fees. In the very first year, it was well accepted in the society. The NERF provided the state of the art infrastructure from the beginning. Even though, it was started in a rented premise, it was equipped with all required laboratories and equipment. The modern workshop was established for first-year students from the very beginning.

The Institute became the front runner in all academic ventures it followed. The mission of NIT was Quality. Quality, and Quality. In the very first-year more than 50% of the faculty members were in the cadre of professors and Assistant Professors (equivalent to present associate professors). The institute laid down emphasis on discipline and quality. The authority regularly interacted with the parents for the progress of their wards. Even NIT was affiliated to Gujarat University, at that time emphasis was given on course beyond the curriculum. The institute organised many field trips and guest lecturers for the students.

As a result, in the very first year, out of top ten rankers in Gujarat University, five were from Nirma Institute of Technology. In the second year, NIT became the first choice amongst the students seeking admission in Engineering in Gujarat. Faculty induction and training programmes were regularly organised. Institute deputed faculty members in STTPs and CEPs organised by IITs from the very beginning. Students’ counselling and mentoring were given top priority from the very beginning. Students’ counselling and mentoring were given top priority from the very beginning. From 1998-99, just after its three years of existence, the management started to depute the faculty members for higher education under QIP. Faculty members were deputed only to IITs for M Tech. Even though, the institute was in the developing stage, management took a bold decision to depute large number of its faculty members to pursue M Tech in different disciplines. The faculty members were top rankers at IITs during their study. That created a good impression amongst the professors of IITs. This helped significantly to have good relations with IITs.

The institute hosted the ISTE National Convention in 2000, where more than 1100 professionals visited the institute. NIT was known for its infrastructure and quality education in the whole country. Institute went for the first cycle of NBA in its just fifth year of existence. In 2001-02 Electrical Engineering, Mechanical Engineering, Electronics and Communication and Civil Engineering were accredited.

Institute initiated promoting students to participate in the national level competition from 2002 with full financial support. As a result, Team Nirma became National champion in Robocon 2002 beating IIT Kanpur and represented India at Japan.

**Growth of Student Intake of Institute of Technology**

![Growth of Student Intake of Institute of Technology](image-url)
The Glorious Rise of Institute of Technology under Nirma University (2003-2020)

In 2003, NIT came under the tutelage of Nirma University and was christened Institute of Technology, Nirma University (ITNU).

With the academic autonomy bestowed on ITNU, Choice Based Credit system and Continuous Evaluation were introduced in 2003 to take the quality of education to greater heights. One of the best practices of ITNU is undertaking a major revision in the curriculum every 4-5 years keeping the latest in technology and the need of the society in mind. All stakeholders are involved in the design of the curriculum.

A large number of electives are added in the academic framework-offering a cafeteria system in the academic domain. Value added courses, enrichment subjects, compulsory industrial internship, a mandatory course on social services, NSS and NCC activities, counseling, and mentoring process is a part and parcel of the evolved curriculum of the institute. Outcome-based education is introduced in every department which led to the prestigious accreditation by NBA. The Institute hosted the Indian Science Congress in 2005, where more than 6000 scientist participated actively. Then-President of India Dr. A P J Abdul Kalam, the Prime Minister of India, Dr. Manmohan Singh, and Shri Narendra Modi, Chief Minister of Gujarat graced the occasion. Students of the Institute also participated in a big way and brought laurels in National Competition of SAE-BAJA, Mitsubishi Cup, Freescale Cup, National Level Hackathon to name a few. A large number of MoUs with research organizations including SAC-ISRO, IPR, CSIR Labs, etc. for strengthening MTech and PhD programs were signed. The strength of the faculties increased substantially and at present most of the faculties are with PhD.

Research is encouraged to bring excellence in the quality of education. With this research stress, the number of funded projects have been undertaken with the funding received from national funding agencies like DST, BRNS, ISRO, DRDO, GUJCOST, AICTE, etc. Several patents were filed in these years that showcases the mettle of the institute. For Academic benefits, a large number of MoUs with leading foreign universities for student and faculty exchange were also signed. Centre of Excellences are established in the current technology domains of Data Science in collaboration with Binghamton University, USA and also in the area of Robotics and Automation with support of Mitsubishi India Pvt. Limited. The institute has an active thermal insulation testing laboratory established under the NAFETIC scheme of AICTE. This facility is extensively utilized by the various industries and organizations for testing of various properties of thermal insulations. The institute also established state of the art Heavy Structure laboratory in Civil Engineering, PLC lab in collaboration with Mitsubishi India Pvt. Limited as well as Centre of Advanced Instrumentation. The institute is looking forward to establishing an incubation center for the development of entrepreneurship among the next generation of students. Theme based research parks are planned to carry out interdisciplinary research in collaboration with industries, research organizations, and academia.
Shri Ambubhai Patel, Managing Trustee, NERF

Shri Ambubhai M. Patel, are Managing Trustee of Nirma Education & Research Foundation (NERF), and founding Vice President of Nirma University. Spearheading the efforts of NERF to develop centres of excellence in academics, Shri Ambubhai contributed relentlessly to the efforts of shaping the dream of Dr. Karsanbhai K. Patel, into reality. He always supported various development activities of the university. He took keen interest in various activities of the departments. His suggestions made during meeting with the faculty members were always progressive leading to professional growth of the department. He always encouraged faculty members to take active part in research and consultancy projects.

Shri Ambubhai has been a source of constant inspiration and guidance in pursuing the expanding aspirations of Nirma University.

Dr N. V. Vasani, Advisor to NERF & Founding Director General

Late Prof. (Dr.) N. V. Vasani played an important role in fulfilling the noble vision of Dr. Karsanbhai K. Patel of developing world-class Institute with the idea of giving back to the society. With the vision and generous support of Dr. Karsanbhai K. Patel, Prof. Vasani developed a blueprint and laid a strong foundation of Nirma Institute of Technology in 1995. Prof. N. V. Vasani was instrumental in developing academic programmes of Nirma Institute of Technology and subsequently for other institutes, Nirma Institute of Management, Nirma Institute of Diploma Studies, Nirma Institute of Pharmacy and Nirma Institute of Science. He always emphasized upon developing strong academics through the robust teaching-learning system, and laboratory development for the benefit of students. With his experience as Vice Chancellor of Gujarat University, Director of Directorate of Technical Education, Government of Gujarat, Member secretary of joint admission committee for professional courses (ACPC) and other administrative responsibilities at All India Technical Education (AICTE), Indian Society of Technical Education (ISTE), he developed strong administrative system for smooth running of Academic Institutes under Nirma Education and Research Foundation (NERF).

His able leadership and constant efforts for the development of Institutes led to the formation of Nirma University in 2003 within 8 years of inception of the Nirma Institute of Technology. Well qualified faculty members with a strong base of teaching-learning and research are due to Prof. Vasani’s special emphasis on faculty development through deputation of faculty at IITs and other reputed Institutes for PhD and Higher studies as well as for attending training programmes. Institute of Technology, under his guidance and able leadership, hosted two national level events, ISTE Annual Convention in 2000 and Indian Science Congress in 2005. Both the events were appreciated by the participants for well organization and hospitality. His continuous efforts for networking with reputed institutes in India and abroad put Nirma University on national and international platform. He always interacted with faculty members and inspired them for working hard for teaching-learning and research-related activities. He always motivated faculty members to adapt to the changes and to contribute to the development of society.

Prof. Vasani was a visionary and inspiring leader. His contribution of over two decades for the development of Institute of Technology, Nirma University will always be remembered.
Dr H. V. Trivedi, Founding Director, Nirma Institute of Technology

Prof. (Dr.) H. V. Trivedi played a crucial role in Institute Building as a Founder Director of Nirma Institute of Technology for the initial 10 years during 1996 to 2006.

He laid major emphasis on robust teaching learning process, laboratory development which made Nirma Institute of Technology as first choice among the students. He organized various training programmes for faculty members as well as professionals in area of latest developments in technology. Under his leadership Nirma Institute of Technology received National award of Engineering College having Best Overall Performance for the year 2002 by Indian Society of Technical Education (ISTE). His hard work and constant efforts in providing high quality technical education was recognized through Bharati Vidyabhavan National Award for Best Engineering College Principal from ISTE in 2002. Various programmes of Nirma Institute of Technology got accredited by National Board of Accreditation (NBA) under his leadership.

Prof. Trivedi always emphasized on improvement in teacher’s quality. He deputed faculty members at IITs and other reputed Institutes for PhD and Higher studies as well as for attending training programmes. This has developed strong faculty base for Institute of Technology, which is important for growth of institute. He always favoured student centric teaching-learning processes for achieving intended outcomes and improving quality of graduates. He put more emphasis in conducting effective tutorials and laboratory sessions to supplement classroom teaching for better understanding. He ensured students engagement in various teaching-learning processes through continuous evaluation and academic reviews. He developed conducive environment in which faculty members and students could work with their full potential in achieving excellence. He gave equal weightage to technical skill and soft skill for career development of students and took various initiatives in that direction. He provided transparent leadership for academic and administrative management through frequent and barrier free communication with faculty members and students. He always motivated faculty members to adapt new teaching-learning methodology and research for taking institute at higher level.

Prof. Trivedi was a committed leader, inspiring teacher and amicable person. His contributions in developing strong academic foundation of Nirma Institute of Technology will always be remembered.
The Team

Dr Rajesh Patel
Director (I/c)

Dr Santosh Vora
HoD
Electrical Engineering

Dr Sanjay Patel
HoD
Chemical Engineering

Dr Urmil Dave
HoD
Civil Engineering

Dr Madhuri Bhavsar
HoD, Computer Science & Engineering

Dr Dhaval Pujara
HoD, Electronics & Communication Engineering

Dr Jignesh Patel
HoD, Instrumentation & Control Engineering

Dr Kaushik Patel
HoD
Mechanical Engineering

Dr Kunal Pathak
HoD, Maths & Humanities

Shri B J Patel
Deputy Registrar
Departments
About the Department

The Chemical Engineering Department, established in 1995, comprises of highly qualified and committed faculty with experience in academia, industry and R&D. The BTech program of the department is NBA accredited under Tier-I category. The department inculcates technical strength, social skills and environmental consciousness among the students. The department is involved in consultancy assignments including Environment Audit for Schedule I industries. It also embraces dynamic and vibrant students’ association called ChESA, a body for the students and by the students.

Programmes Offered

- BTech in Chemical Engineering
- MTech (by Research)
- PhD in Chemical Engineering (Full-time & External)

Core Competencies /Research Areas

- Thermodynamics and Computational Research
- Multiphase Flow
- Polymer
- Catalysis
- Renewable Energy
- Wastewater Treatment
- Green and Sustainable Chemistry
Linkages

In order to cater to the needs of the ever-growing and fast-changing world, the Chemical Engineering Department has established linkages with other departments, academia, industries and research institutes. This move has assisted its students as well as faculty members in realising the needs and challenges of research, academic and industry alliances and helped in imparting teaching beyond the curriculum.

Over and above these linkages, the department also aims to explore the other alliances of Institute of Technology.

- Conducted 12 AICTE/ISTE approved Short Term Training Programme (STTP) and several short programs under CCE on various areas related to chemical engineering.
- Won awards from various national level agencies like, ISTE, INAE, IICChE, SAE, ACTI.
- Involved in various consultancy assignments including Environment Audit for Schedule-I industries.
- Campus placements from leading organizations like Reliance Industries Ltd., Tata Chemicals Ltd., Nirma Ltd., Linde Engineering India Ltd., L&T Technology Services, Galaxy Surfactants, Jubilant Life Sciences, Hindustan Unilever Ltd., BASF, Thermax Ltd., Gujarat State Fertilizers and Chemicals Ltd., Gujarat Narmada Valley Fertilizers and Chemicals Ltd., etc.
Achievements

- Best IPCL M.Tech. Thesis Award by ISTE on more than ten occasions
- Three times Go-Green Award by SAE Baja
- Achieved honour of Highest amount of consultancy and testing in the institutes from last 5 consecutive years
- Ten Awards as Outstanding Young Engineers by IIChE
- Best Researcher Award by IIChE
- Students’ Project Awards by INAE, ISTE, IIChE, ACTI
- Environmental Auditor (Schedule-I) recognized by Gujarat Pollution Control Board (GPCB)
- Filed Five Patents
- Conducted workshops, seminars, conferences and training programs
- Have won many national and state level awards
- Published many papers in refereed journals and conferences and more than 20 in the last three years
- Got funding of more than 35 lakhs in last three years
- Consultancy of more than 30 lakhs in last three years
- Faculties are working as committee members in various organizations like GPCB, Green Vatva to name a few
- Organizing committee members of various seminar/workshops organized by other organizations.
- Mr. Hardik Shah (Ph.D.: 2011-2018), alumni of the Chemical Engineering Department has been recently appointed as the Private Secretary to PM Narendra Modi.
- Mr. Puneet Malpani, alumni of the Chemical Engineering Department has developed chemically treated non-woven fabric to protect against COVID-19.
- Dr. Jayesh Ruparelia, Professor Chemical Engineering Department has been awarded for Best Engineering College Teacher in Gujarat-Indian Society for Technical Education (ISTE) at Charutar Vidya Mandal, Vallabh Vidyaynagar.
- Dr. M H Joshipura, Professor Chemical Engineering Department won the best paper award in Other Allied Fields Category at International conference on “Advances in Chemical Engineering -2020” at University of Petroleum Engineering and Science, Dehradun held during 5th-7th February 2020.
Faculty Positions

- Professor: 9
- Associate Professor: 3
- Assistant Professor: 2

Faculty Qualifications

- Ph.D.: 13
- Ph.D. Pursuing: 1

Research Labs
- Mass Transfer operation
- Heat Transfer operation
- Hydrocarbon technology
- Chemical Reaction Engineering
- Fluid flow operation
- Instrumentation and Process Control
- Solid Fluid operation
- Chemistry laboratory
- Modelling and Simulation
- Transport Phenomena
- Chemical Process Industries

Major Equipment
- Gas Chromatography (GC)
- HPLC (High Pressure Liquid Chromatography)
- High Performance Thin Layer Chromatography (HPTLC)
- Atomic Absorption Spectroscopy (AAS)
- Differential Scanning Calorimetry (DSC)
- Fourier Transform Infra-Red Spectroscopy (FTIR)
- High pressure homogenization
- Lyophilization
- Particle size analyzer
- Spectrofluorometer
- Total Organic Carbon (TOC)
- UV/VIS/NIR Spectrophotometer
- Fluorescence Microscope
- Flow Cytometry
- Polymerase Chain Reaction (PCR)
- Packed bed distillation column
- Bubble cap distillation column
- Sieve plate distillation column
- Fluidized bed dryer
- Forced draft tray dryer
- Ion exchange
- Cooling tower
- Anechoic chamber
- CSTR, PFR, coil tube reactor

Major Software
- Aspen HYSYS
- HTRI
- Super Pro
- Polymath
- SigmaPlot13
- ProSIM
- AutoCAD
- ChemCAD
- MatLab


Student Associations & Activity

Chemical Engineering Students’ Association, ChESA

The Chemical Engineering Students’ Association, ChESA is an association by the students and for the students of the Chemical Engineering Department. ChESA is one of the oldest student associations of the institute established in the year 1996. The basic aim of the association is to foster and maintain networking among fellow students and alumni through technical and social events on a continual basis.

- ChESA organizes a wide range of seminars, lecture series, social activities, competitions, workshops, sports activities, career talks, etc.
- The annually published magazine of the association called “Synergy” includes details of events organised under the banner of ChESA and articles by the members.

Indian Institute of Chemical Engineers (IIChE) Student Chapter

The Department of Chemical of Engineering, Institute of Technology, Nirma University organized a National Technical Symposium, ChemFusion 2020 under its Indian Institute of Chemical Engineers (IIChE) Student Chapter. The two-day event organised on 4th and 5th March 2020 witnessed a participation of over 500 students from several engineering colleges. Several events were organised as a part of this symposium like Aqua Rocket, a model-based event; Chem-O-Rover, an event with model cars that used small-scale chemical reactions as fuel, quiz and Chemathon, where students spent 36 hours solving an industrial plant design problem before presenting their solutions to a panel of experts.
About the Department

The Department of Civil Engineering was established in 1996. It offers four year degree programme of B.Tech in Civil Engineering with an intake of 120 students. The Department has started offering a two year postgraduate programme of M.Tech in Civil Engineering with specialization in Computer Aided Structural Analysis and Design (CASAD) from 2002 with an intake of 18 students. Doctoral Programmes in Structural Engineering, Geotechnical Engineering and Geomatics are also offered by the department of civil engineering. M.Tech (by Research) programme is introduced by the department for working professionals. The B.Tech program of the department is NBA accredited under Tier-I category. It strives to impart fundamental knowledge along with professional skills leading to the overall development of the students. The Department broadly works in core domains of Civil Engineering such as Structural Engineering, Geotechnical Engineering, Construction Technology, Planning and Management, Surveying, Remote Sensing and GIS, Transportation Engineering, Environmental Engineering and Water Resources & Irrigation. Department has well-equipped laboratories pertaining to the various areas of Civil Engineering.

Department focuses on imparting industry relevant training with strong theoretical concepts to students during classroom teaching, laboratory sessions, projects, competitions, value added courses, expert lectures, site visits, practical training, etc. The department has successfully completed a number of research projects funded by national and international funding agencies i.e., SAC-ISRO, ISRO-RESPOND, DST-SERB, GUJCOST, IC-IMPACTS, European Space Agency and Institutions of Engineers (India). The research outcomes of many funded projects result into the development of research capabilities of the department. The department is actively involved in providing diverse consulting services in Civil Engineering. Testing assignment from regional industries is a routine activity accomplished with well-established laboratory set-ups.

Department has established a strong network with Professionals, Peers from Academic & Research organisations and Alumnus, who supports various activities like site visits, expert lectures, practical training, projects, placements, consultancy and research.
Programmes Offered
- BTech in Civil Engineering
- MTech in Computer Aided Structural Analysis and Design
- MTech (by Research)
- PhD in Civil Engineering (Full Time & External)

Core Competencies /Research Areas
- Concrete Technology and Sustainable Materials
- Earthquake Engineering and Structural Dynamics
- RCC, Steel, Precast and Special Structures
- Strengthening and Retrofitting of Structural Elements
- Structural Health Monitoring
- Computational Mechanics
- Ground Improvement Techniques
- Analysis and Design of Foundations
- Remote Sensing, Geographic Information Systems (GIS), Global Positioning Systems (GPS) and their applications
- Construction Technology and Management

Linkages
- University of Victoria, Canada
- Space Application Centre (SAC), Indian Space Research Organizations (ISRO)
- Gujarat Pollution Control Board (GPCB), Gandhinagar
- Central Building Research Institute (CBRI), Roorkee
- Institute of Seismological Research (ISR), Gandhinagar
- Institute for Plasma Research (IPR), Gandhinagar
- CSIR – Structural Engineering Research Centre (SERC), Chennai
- Bhabha Atomic Research Centre (BARC), Mumbai
- Oil and Natural Gas Corporation Limited (ONGC)
- NUVOCO Vistas Corp. Ltd., Ahmedabad
Achievements
The department celebrates a proud history of student and faculty achievements –

- ISTE Award for the Best Engineering College Teacher in Gujarat State
- ISTE National Award for having guided Best M Tech Thesis (I Prize)
- ISTE National Award for having guided Best B. Tech. Project in Civil Engineering
- Young Engineers Award in Civil Engineering Division by The Institution of Engineers (India)
- Awarded Travel Grants to present papers at various International Conferences
- E P Nicolaides Prize for publishing paper with Journal of The Institution of Engineers (India): Series A by The Institution of Engineers (India)
- ISTE National Award for Best B. Tech. Project in Civil Engineering
- ISTE National Award for Best M. Tech. Thesis in Civil Engineering
- Received a grant for student project as a part of UL Safer Roads, Safer India Campaign
- Winner at National Concrete Canoe Competition 2015 organized by IIT Madras
- Gold / Silver / Bronze medals in Civil Engineering in All India Design Competition for Engineering Students by National Design and Research Forum, IEI
- Best Paper / Best Poster / Best Presentation Awards at different National & International Conferences
- Winner at various State / National level technical and sports competitions
- Enrollment by students for higher studies at reputed Institutions across the globe
Research Labs:
- Heavy Structures Laboratory

Major Equipment
- 6 m x 28 m strong floor
- 5 tonne electrically operated overhead crane
- Loading frames for applying vertical and lateral load,
- Universal testing machines (40 T & 100 T capacity)
- Compression testing machines,
- Flexure testing machine
- Hydraulic Jacks,
- Load cells,
- LVDTs,
- XY plotter,
- Strain measurement system,
- Shock Table facility,
- Shake table with harmonic motion,
- Uni-axial and Tri-axial accelerometers,
- Data acquisition system,
- Facilities for concrete durability testing such as Rapid Chloride Permeability, Accelerated carbonation, Accelerated corrosion, Sorptivity, Fire testing, Permeability, Impermeability, Rapid chloride migration etc.
- Non-destructive testing facilities such as Rebound hammer, Ultrapulse velocity meter, Core cutter, Half-cell potentiometer, Resistivity meter, Covermeter, Pull-off tester
- Digital Triaxial Compression Test Apparatus,
- Static Cone Penetration test Apparatus,
- Three Gang Digital Consolidation Test Apparatus,
- Digital resistivity meter
- Universal Automatic Compactor,
- Digitalised Direct Shear Test Apparatus,
- Laboratory Vane Shear Test Apparatus,
- Swell Test Apparatus,
- Standard Penetration Test Set-up,
- Universal Hydraulic Extractor,
- Brick and Block Making Extractor,
- Foam Generator,
- Tensile Testing Machine,
- Vickers Hardness Testing Machine,
- Rockwell cum Brinell Hardness Testing Machine,
- Impact Testing Machine,
- Fatigue Testing Machine,
- Torsion Testing Machine,
- Mortar Mixer,
- Hot Air Ovens,
- Concrete Mixer Machines,
- Accelerated Curing Tank,
- Autoclave,
- Self Compacting Concrete testing facilities,
- Tile abrasion testing machine,
- Facilities for manufacturing and testing of paver blocks, AAC blocks etc.
- Los Angeles Abrasion Testing Machine,
- Deval Abrasion testing machine,
- Marshall Stability test apparatus,
- Buoyancy Balance (sp. gravity test apparatus),
- Automatic Standard Penetrometer,
- Bitumen extractor,
- Benkelman Beam,
- Digital pH Meter,
- Digital Conductivity Meter,
- Digital TDS Meter,
- Digital Nephelo Turbidity Meter,
Student Associations & Activity

Organisation of Civil Engineering Students (OrCES)

OrCES - a student association aims to organise co-curricular activities at the department for the student to showcase their engineering fundamentals through various technical events. OrCES, formally known as “CONTEMSA”, was founded on 28th September 1997 and was renamed as OrCES in the year 2003.

Some of the activities organized by OrCES are as follows:

- OrCES celebrates Traffic awareness week, World water day, Environment day, etc. and showcase their solidarity towards the society.
- OrCES has set-up a platform named ‘SETU’, to organise activities related to social welfare, societal welfare and to offer support during an event of a natural disaster.
- CONTECH, a flagship event of OrCES and a State level Technical Symposium was organized on 5th October 2012 and about 325 student participants of various engineering colleges attended it.

Major Softwares

- MS Project,
- IIT PAVE,
- Geomedia Professional,
- STAAD Pro,
- ETABS,
- SAP2000,
- Proshake,
- MapInfo,
- AutoCAD 3D,
- Origin,
- Midas GEN
- ABAQUS
- MATLAB
- ENVI
- MicroController based Colony Counter,
- Membrane Filtration Assembly
- Digital Biochemical Oxygen Demand (BOD) Analyser,
- BOD Incubator
- Bacteriological Incubator,
- Chemical Oxygen Demand (COD) Digestion Apparatus,
- Distillation Apparatus,
- Fine Particulate Sampler 2.5,
- Respirable Dust Sampler,
- Sound Level Meter,
- Total Station,
- GPS Receiver,
- Digital Level,
- Automatic level,
- Digital Planimeter,
- Transit Vernier Theodolite,
The annual tech-fest Nirman was organized on 8th and 9th September 2016. It comprised of various engineering events, non-technical events and technical workshops wherein 1000 students from around 20 engineering colleges participated. This annual tech-fest Nirman was organized during years 2017 – 2019.

Nirman 2019 was a two days national level technical symposium organized on 14th and 15th October 2019. The symposium had various technical events, different workshops, paper and poster presentations. The major attraction of the event is the mock drill demonstrated by NDRF (National Disaster Response Force) Battalion No. 6, Gandhinagar.

OrCES, IGBC Student’s Chapters along with NSS, Nirma University had organized student symposium on “Converting Plastic Waste to Wealth” on 23rd January, 2020.

OrCES organized E-waste collection drive with the association of Centre of Environment Education (CEE), Ahmedabad for one week during 9th to 15th October 2018.

OrCES organized fire drill demonstration for students on 23rd October 2018. Ahmedabad Municipal Corporation Fire Department, Prahladnagar Fire Station conducted mock drill.

OrCES arranged a ‘Flood Relief Initiative’ for helping the ones who’re affected by the flood on 1st and 2nd August 2017.

OrCES organized an extension activity for children living in labour colony on 03rd October 2017.

OrCES in association with Blind People Association, Vastrapur organized an event “Divyang Talent Performance and Tribute” on an occasion of foundation day, i.e. 03rd October 2016.

On 2nd July 2020, OrCES organized a webinar by Capt. Dharmveer Singh, retired Captain of the Indian army, over the topic “Life Lessons from Indian Army”.

On 27th April 2020, a webinar was organized titled as “Three Lessons from Gita”. The webinar was guided by Shri Rasa Parayana Dasa who is a life coach at Hare Krishna Mandir Iskon, Ahmedabad.

MoU

- Space Applications Centre-Indian Space Research Organisation (SAC-ISRO)
- CSIR - Central Building Research Institute (CBRI) - Roorkee
- Eco Carbon Pvt. Ltd (ECPL)
- Ahmedabad Textile Industry’s Research Association (ATIRA)
- Dr. Fixit Institute of Structural Protection and Rehabilitation (DFI-SPR).
About the Department

Department of Computer Science and Engineering was established in 1997 and since then is the most sought after Department of the Institute. The BTech programme is accredited by the National Board of Accreditation (NBA) under Tier-I category. The Department has always kept pace with the rapid advancements in the field.

The Department is known for its strength in Theoretical Computer Science, Image Processing and Computer Vision, High Performance Computing, Artificial Intelligence and Deep Learning, Internet of Things, Data Science, Cloud Computing, Networking and Cyber Security. The combination of qualified and committed faculty, a strong peer group, core and inter-disciplinary research, collaboration with leading industries and research organizations offers students of this department an enriching learning experience.

Programmes Offered

- BTech in Computer Science and Engineering
- MTech in Computer Science and Engineering
- MTech in Information and Network Security
- MTech in Data Science
- MTech (by Research)
- Master of Computer Application
- Minor Program
  - Computer Engineering – for Non-CSE students
  - Information Technology– for students of BBA – MBA programme
- PhD in Computer Science & Engineering (Full-time & External)
Core Competencies /Research Areas
- Machine learning
- Deep learning
- Data Science
- Internet of Things
- Computer Security

Linkages
- INS Valsura
- Department of Science and Technology (DST)
- Infosys
- Gujarat Council of Science and Technology (GUJCOST)
- Indian Space Research Organization (ISRO)
- Tata Consultancy Services (TCS)
- NVIDIA
- Department of Atomic Energy (DAE)

Achievements
The department celebrates a proud history of student and faculty achievements –
- Several awards received by faculty members including ISTE Best Engineering College Teacher Award for the year 2017 by Dr. Madhuri Bhavsar.
- Till date two patents, 15 books, more than 200 research papers, 10 best research paper awards are credited by the department.
- CSI and ACM student chapters continue to impress with a number of extra curricular activities.
- Students continue making us proud by participating and winning various events organized by ETHIndia, Techstar in association with Google, CDAC, Spart AR by Facebook, IBM research and many more.
Research Labs
- NVIDIA Supported Deep Learning Laboratory
- High Performance Computing Laboratory
- Networking and Internet of Things Laboratory
- Information and Network Security Laboratory
- CISCO Laboratory

Major Equipments
- Param Shawak
- multi-GPU based system having wide range of Graphics Processing Units (GPU Cards) supported from NVIDIA (like GeForce, Tesla, K20C, K40C etc)
- NVIDIA Setup (consisting of V100 and G100) is used for performing machine learning, deep learning accelerating high performance applications in the domain of computational science, bioinformatics, multimedia systems and large database systems.
**Student Associations & Activity**

**ACM** - Association for Computing Machinery ACM students chapter invited Dr Stephen Brewster, Professor of Human-Computer Interaction in the School of Computing Science at the University of Glasgow. The entire event consisted of a 3-day long program, wherein he delivered talk on the Human Computer Interaction (HCI) and ongoing developments in the field. He also interacted with students from various disciplines as well as with faculties from the Department of Computer Science and Engineering. The event was attended in huge number.

**CSI**: Colosseum / Innovision / Blizkreig are the trademark event of the CSI which organized every year with more than 500 students’ participation across the Engineering colleges of Gujrat. The events like paper presentation, project presentation, workshops, virtual stock marketing etc. are organized very efficiently. These events are helping the students in their all-round development to become a good citizen of our country. Our student branch of CSI has won the best student branch, Region III award by national body Computer Society of India in 2011.

Association of Computer Engineering Students (ACES) along with Infocrats and CSI, organized Happy Street, a very interesting and joyful event on 25/1/2020. We have different 8-10 outdoor games like tug-of-war, dog and the bone etc. Not only students but also faculty enjoyed it a lot and it was a very successful event.

Association of MCA Students (AMS) organizes TechHunt each year as a part of NuTech. The event is a coding based treasure hunt. Participants are provided with an android app and verified through QR code. The teams solve the programming code and can move to next place for next clue in the hunt. This event takes the teams to different places in the Nirmaland. Usually the event witnesses footfall of 450 students each time.

During the lockdown period during June 2020, Infocrats organized a novel online poster and video making competition on the theme of “How to behave post lockdown?”. Enormous number of participants from across the institute participated and contributed their innovative and creative thoughts with posters and videos. These entries of participants were uploaded on Instagram and they received an overwhelming response.

MoU : Institute MoUs with INS Valsura, Jamnagar, Gujarat; J K Lakshmi Cement Limited and INFOSYS Technologies, Bangalore the having the major takeaways for the CSE students and teachers.
About the Department

The Electrical Engineering Department, Institute of Technology was established in the year 1995. Since inception, the department is known for its quality teaching-learning and research environment. The curriculum is a mix of core and elective courses. The core courses build the fundamentals of the students and make them technically competent, while a varied choice of disciplinary and interdisciplinary electives assist them to specialize in the areas of their interest.

With the state-of-art laboratories at the department, faculty train the students to obtain sustainable solutions for industrial and societal problems. The department is accredited by the NBA, New Delhi.

Programmes Offered

- BTech in Electrical Engineering
- MTech in Electrical Power Systems
- MTech (by Research)
- PhD in Electrical Engineering (Full-time & External)
Core Competencies /Research Areas
Following are the thrust areas to conduct various research-based activities:

Power System Engineering
- Power Generation Technology
- Power System Dynamic and Stability
- Power System Restructuring and Deregulation
- Wide Area Measurements and Applications
- HVDC and FACTS
- AI Techniques and Optimization in Power System

Electrical Machines and AC-DC Drives
- Conventional Electrical Machines
- Permanent Magnet Machines
- Electrical Drive Technologies
- Control of Electrical Machines

Electric Vehicles
- Electrical Vehicular Technologies
- Battery Technology and Battery Management
- Grid Interfacing Issues of Electrical Vehicle

Smart Grid Technologies and Micro-grids
- Real-time pricing and Demand Response in Smart Grid Environment
- Smart Grid Communications
- Micro – and Nano – Grids, issues and solutions
- Smart features in Electrical Grid

Improved Power Quality for Power System of Future
- Active Power Filters
- Active Front-End Converters
- Unity Power factor correctors

Linkages
A few important linkages are listed below -
- Gujarat Council of Science and Technology
- Electrical Research and Development Association
- Institute of Plasma Research
- Amtech Electronics India Ltd.
- Veeral Controls Pvt. Ltd.
- Hitachi Hirel Power Electronics
- L&T Electricals & Automation Products
- Duke Plasto Techniques Pvt. Ltd.
- Howe Engineering Projects (I) Pvt. Ltd.
- Rotomotive Power Drives India Ltd.
- J.K. Laxmi Cement Ltd.
- NUVOCO Vistas Corp. Ltd
- Raychem RPG Private Limited
Achievements
The department celebrates a proud history of student and faculty achievements –

- Dronacharya Award for best mentoring by SAE BAJA
- Rajarambapu Patil National Award for Promising Engineering Teacher by ISTE
- Prof. Muhammad H. Rashid Best Paper Award at 2017 IEEE International Conference on Technological Advancements in Power and Energy
- Faculty members are Reviewers of reputed International journals, DPC members for various institutes and industries, Expert member of Selection committee for various institutes, committee member for peer team appointed by NAAC, Session chair, etc.
- Till date, 06 books, more than 360 research papers, 11 best research paper awards are credited by the department
- The combined efforts of the students and faculty members have led the University to become 8 times National champion in the “ROBOCON”, a national level intercollegiate robotic competition
- Awards and recognition for the agriculture relevant product “Shool”
- M BAJA and E BAJA - Three times Go-Green Award, First in Endurance Race, Overall third rank in M-BAJA, Sledge-pull award, Maneouvrbility Award, Raftar Award
- UG Students secured high scores/ranks in competitive exams such as GATE, CAT, GRE and admitted to premier institutions at National and International level
- Students are co-authors of conference research publications Entrepreneurship - Our student-initiated various enterprises such as Super Auto Parts, Angel Pumps and Motors, Sapt Engineers, Ekolo, Evotar etc.
Research Labs
- Switchgear & Protection Lab
- High Voltage Lab
- Power Electronics and Drives Lab
- Electrical Machines Lab
- PG Project Lab
- UG Software Lab

Major Equipment
- OPAL-RT Hardware-In-Loop (HIL) Set-up OP4510 Real-Time Simulator
- Three-phase Programmable AC source
- Impulse Generator Complete with Transformer Rectifier Resistance Divider Load
- dSPACE (ACE_1104) Advanced Control Education Kit with Software Package
- Wind Energy System
- SPAD-346C Transformer Relay
- Numerical Distance Protection Relay
- Solar Photovoltaic Training and Research Kit
- Demonstration Model of Sensorless Vector Control AC Drive
- Pyranometer
- Tuned Harmonic Filter
- Switch Reluctance Motor 0.75 KW
- DSP Trainer Kit, JTAG Emulator, Code Composer Studio
- Dielectric Constant Meter, Rang: 1 to 19.99 max, 1MHz
- 3-Phase Power Analyzer Fluke Model
- Arbitrary Waveform Generator
- D.C. Regulated Single Power Supply 30-300 V / 10 A
- SPAM-150C Motor Protection Relay
- Power and Harmonic Analyzer (DPM) 100 A
- 200 MHz Digital Storage Oscilloscope DL 1640 Series Model 701640-AC-F J1 – D1
- Data Acquisition Board
- AC Motor Protection Simulator
- Universal Programmer
- Analog Discovery Kits

Major Software
- MATLAB Software 2020b
- OPAL RT Software
- Ansys Multiphysics Software
- Magnet 7.4 Software
- Speed Software
- MotorSolve Software
- NEPLAN Software
- PSCAD Software
- ETAP Software
- PSIM Software
- Solid Thinking Software with Motor Control kit
Student Associations & Activity

Electrical Engineering Students’ Association

Electrical Engineering Students’ Association (EESA), Institute of Technology has been involved in successfully carrying out many technical and social activities since its inception. EESA is an association established by the students & for the students. It is mentored by its faculty advisers. The Electrical Engineering Department extends its support in 360° development of its students. The students involve themselves in EESA to hone their extracurricular & co-curricular skills.

- EESA focuses on technical activities like guidance for competitive examinations, workshops on recent trends in engineering like an autonomous robot, smart home, PCB designing etc.
- Apart from the workshops, EESA regularly organizes the sessions on selecting career options, job prospects in engineering, higher studies etc.
- EESA organizes an annual technical symposium “Scintilla” encompassing technical & non-technical events like technical quiz, circuit debugging, mock placements, design-based problem and its solution, technical treasure hunt etc.
- All the students’ associations of Institute of Technology jointly organize an annual tech-fest “NUTECH” in which students get the opportunity to compete with the other students of the country.
About the Department

The Electronics and Communication Engineering Department, Institute of Technology was established in the year 1995. Since its inception, the department is known for its credentials of inspirational teaching-learning and research environment. The curriculum is a mix of core and elective courses. The core courses build the fundamentals of the students and make them technically competent, while a varied choice of disciplinary and inter-disciplinary electives assist them to specialize in the areas of their interest. The state-of-art laboratories at the department train the students to obtain sustainable solutions for industrial and societal problems.

Programmes Offered

- BTech in Electronics & Communication Engineering
- MTech in VLSI Design
- MTech in Embedded Systems
- MTech (by Research)
- PhD in Electronics & Communication Engineering (Full-time & External)

Core Competencies /Research Areas

- Wireless Communication
- Computer Vision and Signal Processing
- Analog and Digital VLSI Design
- Automation and Robotics
- Embedded Systems
- RF Circuit and Antenna Design
- Optical Networks and Free Space Optical Communication
- Wireless Sensor Networks and Internet of Things (IoT)
- Micro-Electro Mechanical Systems (MEMS)
Linkages

- SAC-ISRO
- PRL IPR DRDO
- Intel Technology India Pvt. Ltd, Bengaluru
- NXP Semiconductors India, Noida & Bengaluru
- Cadence Design Systems India Limited, Bengaluru, Ahmedabad
- STMicroelectronics Pvt. Ltd, Noida
- NVIDIA Graphics Pvt. Ltd, Bengaluru
- ARM Embedded Technologies, Bengaluru
- Universities from the US, Canada & Spain

Achievements

The department celebrates a proud history of student and faculty achievements. For over 25 years, the committed faculty members have achieved a long list of accolades that includes “Best Engineering College Teacher of the Gujarat State”, “Young Scientist Award”, “Smt. Ranjana Pal Memorial Award”, “Academic Excellence Award”, US Fulbright-Nehru Scholarship, NVIDIA Scholarship and others.

- Till date, several patents, 14 books, more than 200 research papers, 20 best research paper awards are credited to the department.
- The combined efforts of the students and faculty members have led the University to become 8 times National champion in the “ROBOCON”, a national level intercollegiate robotic competition.
- Doctoral students are awarded scholarships under the “Visvesvaraya PhD Scheme for Electronics and IT” by Ministry of Electronics and Information Technology, Government of India.
- Faculty members have held recognized positions with the IEEE Gujarat Section; Member of the Standing Committee on the scheme of Development of Women’s Studies in Indian Universities & Colleges.

Students continue to impress with a number of accomplishments like winning a prize at Project Expo organized by NITI Aayog, Government of India; winning prize at Hackathon by Tata Crucible; Techstars by Research and Scientific Innovation Society; Mahindra SAE BAHA; Shaurya at IIM Ahmedabad; Hackathon at IIT Bombay; receiving IEEE student project grant; receiving funds from International Centre for Entrepreneurship and Technology and others.
Research Labs
- VLSI Design Lab
- Digital Signal Processing Lab
- FPGA Lab
- Data Communication & Networking Lab
- Microwave & RF Design Lab

Major Equipment
- Vector Network Analyzer
- Spectrum Analyzer
- Logic Analyzer
- Protocol Analyzer
- Anechoic Chamber

Major Softwares
- Mentor Graphics
- Xilinx Software Suite
- ALTIUM Software
- ALTERA
- ORCAD
- Visual TCAD
- Microwind
- Cadence
- Optsim
- Genesys
- High Frequency Structure Simulator (HFSS)
- CST Microwave Studio
- CHAMP
- USRP Software Defined Radio
Student Associations & Activity

Electronics and Communication Students’ Organization

The Electronics and Communication Students’ Organization (ECO) is one of the most vibrant organizations on the campus of Institute of Technology, Nirma University. It was established in the year 1998 for the betterment of the co-curricular and extracurricular activities for students.

- **Prevoyance**, the techno-management flagship event of the Department of Electronics Communication Engineering was first organized in April 2005. It saw more than 500 participants across Gujarat for participation in events like Paper and Poster Presentation, Hardware and Software Project Presentation and workshops.

- Electronics and Communication Engineering Department student club ECO celebrated its 15th year of establishment on April 11, 2013.

- ECO organized the sixth series of Prevoyance event during March 2010. Events like project presentation, Electronics Treasure hunt, Workshops on the advanced processor and on the spot activities were the major attractions of the event.

- ECO day is celebrated every year and various activities like expert lectures, project presentations, talent hunt etc. are organized as a part of the occasion.

- The orientation programme was organized for the students of EC Department on August 27, 2019, to increase the zeal of organizing and participating in co-curricular and extra-curricular activities. The third issue of student magazine ‘ECO Gazette’ was launched during the orientation event.

- Sweet Distribution is another initiative of ECO. Starting from the year 2005 to 2019, every year ECO has distributed sweets to the support staff of Nirma University on the occasion of Diwali as a token of our gratitude to them.

**MoU**

Department is having MoU with Robert-Bosch, Bangalore for Research, Project, Consultancy, Teaching Learning, internship and placement.
About the Department

Instrumentation and Control engineering is an interdisciplinary branch which includes, measurement, control and automation of every important system or process that governs modern life. “You Build, We Control” – Instrumentation and Control is undoubtedly the backbone behind the existence of technological marvels. The concept of control itself is the gift of instrumentation fraternity to the world which has turned many dreams into reality. The ability to measure and control any parameter is the root cause behind the journey of mankind from earth to space. Instrumentation and control engineers are innovators, entrepreneurs, problem solvers and global leaders. They look into the future and invent the technologies to convert the dreams into reality.

Programmes Offered

- BTech in Instrumentation and Control
- PhD in Instrumentation and Control (Full-time & External)

Core Competencies /Research Areas

- Control Systems
- Industrial Instrumentation
- Sensor and Measurement Systems
- Signal Processing
- Soft Computing Techniques
- Embedded Systems
**Linkages**

- Mitsubishi Electrical India
- Space Applications Centre (SAC-ISRO)
- Facilitation Centre for Industrial Plasma Technologies (IPR Unit)
- Inspiron Ltd
- Adani Ports & Special Economic Zone Limited
- Reliance India Pvt Limited
- Linde Engineering India
- KHS Machinery India Pvt Limited
- IFFCO Ltd
- Harikrupa Automation

**Achievements**

During the last 25 years, the department has many accolades of students and faculty achievements.

- IC Department team has participated in Mitsubishi Electric Cup (A National Level Automation competition) and won Gold Cup in 2020 and Silver Cup in 2017, 2018 and 2019.
- Prof. D. M. Adhyaru has won ISTE Best Engineering College Teacher Award for the Gujarat State -2018.
- Department published 02 patents and 68 papers in reputed journals
- Doctoral students are awarded scholarships under the “Visvesvaraya PhD Scheme for Electronics and IT” by Ministry of Electronics and Information Technology, Government of India.
- Faculty members have held recognized positions with the ISA Gujarat Section; Active involvement in Professional Societies. Prof. H. K. Patel won ISA Distinguished Society Services award in 2016, ISA Student Section Leader Award in 2018 and ISA-Excellence in Education award in 2020.
- ISA Student Chapter won the best student chapter awards in 2015 and 2016.
- Every year many students are winning ISA Scholarship awards. Summing up till now total 30+ such awards ranging from $ 250 to $ 5000.
- IC Student team won Rs. 1.0 Lakh cash prize at Smart India Hackathon – 2020
Research Labs

- Measurement and Robotics Laboratory
- Computerized Process Control Laboratory
- Factory Automation Laboratory.
- Process Control Lab
- Instrumentation Software Laboratory

Major Equipment

- Computerized Servo Control System (Inverted Pendulum System)
- Magnetic Levitation Kit
- FX, Q and iQR Mitsubishi PLC Set up
- Robot trainer
- Advanced Process Control Trainer
- 3 Phase Induction Motor Speed Control Trainer
- Arbitrary Waveform Generator and Source Meter
- NI Elvis II Modular Engg. Education Platform

Major Software

- MELSOFT software (For Mitsubishi PLC)
- OMRON PLC with CX-Programmer Software
- Backhoff PLC with TwinCAT Software
- Allan-Bradley (Micro 830) with Connected Components Workbench (CCW)
- Siemens (STEP 7) PLC
- MATLAB 2019 software
- LabVIEW 2010 Software
- ALTERA QUARTUS 2 (Web Edition),
- NI ELVIS education platform
- SCADA (Advantage web access 8.1)
- PROSIMLAB-Control & Instrumentation Suite Software
Student Associations & Activity

ISA: International Society of Automation - Student’s Chapter

ISA, Nirma is a group of budding Instrumentation & Control engineers striving for innovation in the field of automation. Every year, ISA conducts several events. TECHNOFORA is a technical fest of ISA Students’ Chapter of Nirma University which serves as an ideal platform for budding engineers to showcase their new and innovative ideas.

- ISA Student Chapter also conducts SPRINTZ- an annual non-technical event tailor-made for the freshers. SPRINTZ aims at giving talented souls, a chance to show their metal.

- Every year ISA, Nirma, takes up social causes for the betterment of the people in need. It has offered invaluable services to Andh Jan Mandal – A blind people’s association, Apang Manav Mandal, Prakash School for mentally retarded students.

- MagIC is an annual technical magazine which aims at bringing together people from all the stages of this metamorphosing engineering life! From a technical fanatic to an engineering brain to a thorough technical professional, all of these brought together on the same platform.

- ISA Student Chapter also conducted many events during the Institute’s annual technical festival NUTech.

MoU

MoU with Mitsubishi Electrical India Pvt. Ltd. is signed on 19/02/2014. As a part of MOU department received Mitsubishi Sponsored Factory Automation laboratory with latest Industrial Automation related equipment like Q PLC Training Set up, FX PLC Training Set up, iQR Training Set up kit, Robot trainer Kit etc. Under this MoU department organizes various training programs for academicians and/or personnel working in the industries.
About the Department

The Department of Mechanical Engineering was established in the year 1995. It offers undergraduate, postgraduate and doctoral programmes in Mechanical Engineering. The Department thrives to impart fundamental knowledge and emphases on the overall development of its students. The Department excels in the core areas of Mechanical Engineering such as Design Engineering, Thermal Engineering, Manufacturing Engineering, Energy Systems, CAD/CAM, Robotics and Automation, and Materials Engineering. The BTech program in Mechanical Engineering is NBA Accredited under the tier I category. The laboratory and computational facilities are well developed and include a unique facility Thermal Insulation Testing Laboratory, established under the NAFETIC scheme of AICTE. The Department faculty members possess research qualifications from premier institutions in the country. The students of the Department have a strong legacy of excelling in various competitions such as in Robotics and the All-Terrain Vehicle at the national level. The Department is playing a leading role in establishing a Centre for Robotics and Automation with an aim to cater to the needs of upcoming technological developments related to automation in industry. The Department also organizes need based Continuing Education Programs (CEP) and customized training/ workshops for industry personnel.

Programmes Offered

- BTech in Mechanical Engineering
- MTech in Computer Aided Design and Computer Aided Manufacturing (CAD/CAM)
- MTech in Thermal Engineering
- MTech (by Research)
- PhD in Mechanical Engineering (Full-time & External)
Core Competencies /Research Areas

- Energy Systems and Management
- Biomass Gasification
- Heat Transfer Analysis
- Development and Testing of Thermal Insulations
- Computational Fluid Dynamics
- Stress and Vibration Analysis
- Micro Electro Mechanical Systems
- Metal Forming Processes
- Advanced Welding Techniques
- Composite Materials
- Supply Chain Management
- Metal Casting and Welding

Linkages

- L & T Technology Services Ltd.
- Reliance Industries Ltd.
- TATA Motors
- TATA Consultancy Services
- SAC-ISRO
- Institute for Plasma Research
- Maruti Suzuki Limited
- HYUNDAI Motors India
- CEAT Tyres
- Hindustan Unilever Limited
- Milacron Limited
- FIAT India
- MuSigma
- Sabarmati Gas Limited
- Thermax Limited
- Adani Limited
- M G Motors
- Gujarat Gas Limited
- ONGC Petro additions Limited
- J K Laxmi Cement Ltd.
- InspirOn Engineering Pvt. Limited
- Linde Engineering
- Saint Gobin
- Gujarat State Petronet Limited
- Arcelor Mittal Nippon Steel Limited
Achievements

- UG Program is Accredited for three years by NBA
- National Level Thermal Insulation Testing Lab established under AICTE scheme.
- Research projects from ISRO-Respond, DST, GUJCOST
- Best Engineering College Teacher Awards by ISTE for the state of Gujarat
- International ASHRAE Student Branch Advisor of the Year 2018 award
- Dronacharya Award for best Faculty Advisor by SAE BAJA
- ISTE- GSFC Awards for guiding Best M.Tech Thesis
- Best Phd Thesis award from IIT Bombay
- Faculty are members of: Governing Council, BOS of reputed University- MSU, PDPU; Selection Committee at ISRO, IPR, CSIR-CSMCRI; BIS Technical Committee, reviewers of reputed international journals
- Students and Faculty Members of the department play an active role in ROBOCON. The team is eight times National Champion in ROBOCON and represented India at ABU Asia-Pacific ROBOCON Competition.
- SAE BAJA- Three times Go-Green Award, First in Endurance Race, Overall third rank in M-BAJA, Sledge-pull award, Manoeuvrability Award, Raftar Award, M- BAJA Skill Baja, E-BAJA – Sales, CAE, Acceleration, Durability, Overall first rank. Team Arrow awarded Best Overall Performance Award, Best Technical Presentation Award, Best Design Report Award, Best Innovation Award
- Student secured high ranks in competitive exams such as CAT, GATE, GRE, GPSC, UPSC and admitted to premier institutions at national and international levels.
- MOUs with Research Organization / Industries such as ISRO, IPR, J K Lakshmi Cement Ltd., INSPIRON Engineering Pvt. Ltd.
- MoU under Indo-Swiss Building Energy Efficiency Project (BEEP)
Research Labs

- National Laboratory for Testing and Development of Thermal Insulations
- Centre of Excellence in Robotics and Automation
- Advanced Heat Transfer Laboratory
- Manufacturing Process Laboratory
- Design and Dynamics Laboratory
- Advanced Computational Laboratory

Thermal Insulation Laboratory

It aims to accurately determine the various properties and characteristics of thermal insulations as per national and international testing standards and suggest their appropriate utilization thereby leading to the saving of energy and protection of the environment. It also aims to conduct research and develop effective thermal insulations including the usage of eco-friendly and indigenous materials for various applications. The lab is accepted by AICTE which has partially funded the Laboratory in collaboration with industries. The total cost of the project is more than Rs. 160.00 lacs.

Centre of Excellence in Robotics and Automation

With the aim to accelerate the research and advancement in the field of robotics the Centre for Robotics and Automation has been established in 2019. The centre is a common platform for all the researchers working in the area of Robotics and Automation.

Major Equipment

- Guarded Hot Plate Apparatus
- Universal Vibration Apparatus
- VCR Computerized Multi fuel Engine Test Rig
- Dynamic Balancing Machine
- Universal Governor Apparatus
- Split Air-Conditioning Test-Rig
- Compression testing
- Pump as Turbine Test Rig
- Boiling Heat Transfer Set-up
- CNC Lathe Machine
- FFT Analyser
- Vertical Machining Centre
- 3 D Printer
- Inverted Trinocular Metallurgical Microscope with Image Analyser software & Camera
- Data Logger
- Solar Thermal Module
- Single and Multi Cylinder Petrol Test Rig
- Pin on Disc Apparatus
- 6 axis collaborative robot with 10 kg payload and compatible with open source programming tools
- 5 axis articulated arm with 1 kg payload capacity for initial research
- Four wheel Omni drive mobile platform
- Turtle bot with vision camera and LIDAR
- NAO humanoid robot (yet to be installed)
- Hydraulic trainer kit to test the hydraulic circuits
- Pneumatic trainer kit to experiment the pneumatic circuits
- A computer centre with workstations
Major Software

- Fluent 6.3 & Gambit 2.4
- CAM Express 7 (NX CACAD)
- Automation Studio
- SLT for Vibration analysis Level 1 & 2
- Hyperworks 13.0
- Autodesk Product Design Suite Ultimate 2014 Educational license (Including AutoCAD, Inventor, etc.)
- Autodesk Product Design Suite Ultimate 2017 Educational license (Including AutoCAD, Inventor, etc.)
- CATIA VS-6R2012 (Upgradation)
- ANSYS 8.0 Academic
- ANSYS Academic Teaching & Advanced 15
- ANSYS 18
- OriginLab Professional
- Dynaform
- Creo Parametric 3.0 Educational (Upgradation)
- MathCAD Prime 3.0 Educational (Upgradation)
- HTRI Exchanger Suite 7
- Machine Design Online
- NX 11 (Design Academic DB1)
- Solidworks Education 2017
- Minitab17 Academic
- EES (F-Chart)
- TECPLLOT Academic
- Automation Studio
- RoboAnalyzer
- Matlab
- Solid works
- Ansys
- Creo parametric

Student Associations & Activity

Mechanical Engineering Students Association (MESA)

Mechanical Engineering Students' Association, under the aegis of Mechanical Engineering, has been conducting innumerable activities for the youth since its establishment in the year 1998. We at MESA, regularly carry out activities for the betterment of our students and help them excel in fields other than academics.

- Autocalypse is an extension activity organized by MESA every year since 2010. Children of various schools are invited to the campus and exposed to the technical know-how of Automobile through a series of workshops and hands-on sessions conducted by SAE Nirma Team.
- Robocalypse is an extension activity organized by MESA every year since 2017. Students of various schools are invited to the campus and exposed to the robotic technologies through hand-on training by National Champion ROBOCON Team Nirma.
- Robotic Workshop is an institute level technical event wherein students of the first and second year of engineering participate. The participants are provided with a robotic kit in a group for hands-on training robotic technology.
- MESA day is an auspicious event where MESA celebrates its inception with all the members of MESA family. Expert talk, project exhibition competition, passing out student’s felicitation, etc are organized on this day.
- Praveg is a national level techno-management symposium organized by MESA every year since 2016. A plethora of technical events is organized during two days of the symposium. The major attraction of this mega event is “Know You Forces” campaign wherein Indian Armed forces are invited to set up their exhibition and showcase their gallantry to young minds.
- Under Know Your Forces campaign, Indian Army, Indian Airforce, Indian Navy, Indian Coast Guards, National Security Guards and Border Security Forces have showcased their gallantry.
- MESA also organizes various co-curricular and extra-curricular activities time to time such as Mathrix (Mathematics quiz), Desi Olympiad (Indian Sports), Astronomy Workshop, Technical test series, career guidance seminars, etc.
SAE NIRMA COLLEGIATE CLUB

SAE Nirma Collegiate Club established in 2010 under Institute of Technology, Nirma University is a club affiliated to SAE INDIA. Apart from the competitions, the student body involves itself in conducting lecture series and workshops. SAE NIRMA indulge themselves in continuous learning and get exposure to hands-on practical aspects.

SAE NIRMA COLLEGIATE CLUB comprises of Team Stallions and Team Arrow.

- Team Stallions has been participating in BAJA SAE INDIA, Mechanical domain where students build engine driven All Terrain Vehicle to participate in the event held at NATRAX, Pithampur, Indore, every year.

- Team Arrow under SAE Nirma Collegiate Club, is also a student-driven team that manufactures aircraft and participates in national and international competitions. It represents ITNU at SAE Aero design Challenge, Chennai and last year the team achieved another milestone by representing the institute at aero design challenge, USA.

ASHRAE Student Chapter at Nirma University

ASHRAE (American Society of Heating Refrigerating and Air Conditioning Engineers) founded in 1894, is a global society advancing human well-being through sustainable technology for the built environment. The Society and its members focus on building systems, energy efficiency, indoor air quality and sustainability within the industry. ASHRAE is celebrating 125 years of existence. ASHRAE Nirma University Student Branch sponsored by Western India Chapter is an official student branch of ASHRAE since 1st January 1999.

MoU

The department has active MoU with TATA Motors, ATIRA, SAC-ISRO, Inspiron Engg. Pvt. Ltd., J K Laxmi Cement for undertaking collaborative activities.
Department of Mathematics and Humanities

About the Department

Department of Mathematics and Humanities has been effectively functioning since 1995. The Department is unstintingly committed to its basic principles of imparting knowledge and preparing the students towards achieving academic excellence through the acquisition of core competence in Mathematics and Humanities and succeeded as an engineering professional.

The Department encompasses Mathematics, English, Economics, and Management courses being offered to all engineering students. Apart from offering mandatory foundation courses, it also offers courses in English to enrich communication skills and enhance their employability.

The teaching methodology for the courses and laboratory curriculum is regularly upgraded and aligned to

Core Competencies /Research Areas

- Numerical analysis
- Computational Biology
- Convex Optimization
- Fuzzy Analysis & its applications
- Computational Fluid Dynamics
- Control Theory
- Financial Mathematics
- Stability Analysis
- Image Processing
- Development Economics
- Econometrics
- Gender Studies
- Social Media Communication
- English Language
- English as Second Language Teaching
- Feminist Literature
- Communication Skills
- Modern Indian History
**Achievements**

The Department of Mathematics and Humanities celebrates a dignified record of the faculty achievements. For over 25 years, the dedicated faculty members have accomplished a distant list of honours, that include “Leading Educationist of India”, “Bharat Excellence Award”, “Indian Golden Personality Award”, “Bharat Vikas Award” and others.

- Till date 47 Conference Papers, 56 Journal Papers and 11 books are credited by the department.
- The department has also been involved in a variety of student activities related to Augen /IL2 that deal with social upliftments like Muskaan-The Joy of Giving and others.
- Under the aegis of the department, student association Invincible Leaders league secured TEDx license thrice. TEDx license is issued by TED Conferences LLC which is an American media organization that posts talks online for free distribution under the slogan “ideas worth spreading”. Nirma University TEDx talks are highly prestigious in nature.
- The faculty members have received a variety of merits in various conferences and seminars, both nationally and internationally.
- Dr Richa Mishra won Distinguished Facilitator Award from Infosys’s Inspire Campus connect program for the work on Gamification of Assessment in September 2017 and Infosys’s Inspire Campus connect program for the track – Content Guru on June 25, 2105, in Infosys’s Pune campus.
- Dr Indu Rao received three awards namely Leading Educationist of India Award, Bharat Excellence Award, and Indian Golden Personality Award during a seminar on ‘Economic Growth and National Unity’ at India International Center, New Delhi on July 28, 2019.
- Dr Parmasivan vellala received Bharat Vikas Award in December 2019.
- Dr Mahesh Yeolekar won the Best Presentation Award under the title “Mathematics in Real World” at One Day National Seminar on Mathematics and its Applications organized at Pandit Deendayal Petroleum University, Gandhinagar, on 19th November 2016.
**Language Lab**

In a globalized world where high proficiency of English is a prerequisite for professional success, the state-of-the-art Language Laboratory at the department of Mathematics & Humanities helps the undergraduate and post-graduate students to acquire advanced levels of spoken English language skills. The language laboratory is well equipped with latest language learning software. Students receive training in written and verbal communication essential to succeed in the workplace. The teaching material consists of explication of standard English grammar, sound, syllable-stress, rhythm, intonation and plenty of exercises for practice. In addition to this, the English software at the laboratory acquaints the learners with the nuances of Standard American English and Standard Indian English so that the students.

**Student Associations & Activity**

**Invincible Leaders’ League**

Is an inter-institute cultural cum leadership club of Nirma University under the Department of Mathematics and Humanities that instil passions and tries to foster talents in vivid forms. Created and developed by those passionate students who had extreme dedication towards their respective fields and aimed to create opportunities for everyone to discover their talent within themselves, creating a platform for art and talent fanatics to gather and exchange their knowledge.

The club organizes a vivid set of events all throughout the year to bring forth the creative and intellectual side of students.

- TEDxNirmaUniversity is an independently organized event at Nirma University, Ahmedabad, under the global TED franchise. As a part of TEDx, IL2 has also organized Crumbs of Ingenuity on 22nd April 2017, where 12 people came to put forward new ideas and a new perspective to life.
- At the Talent Hunt Event organized in March 2017.
- On the account of Foundation Day in 2016, The Augen / IL² Club had organized Muskaan- The Joy of Giving, where the students successfully collected hundreds of books, clothes, shoes and several other items in the duration of a week and distributed it to the slum people.
Pedagogy:

The Institute lays great emphasis on student-centric teaching rather than teacher-centric learning. Implementation of learner-centric teaching is made feasible by the adoption of the well-developed system of Outcome-Based Education (OBE). Keeping in view the Graduate attributes as demanded by the stakeholder, Institute has revised the Programme Educational Objectives (PEOs), Programme Outcomes (POs) and Course Outcomes (COs) of every programme and course, respectively. All the outcomes are achievable and tangible. A closed-loop system, encompassing 360 degree, feedback is practised for monitoring the system of course delivery. Institute, being a catalyst of change has done a drastic curriculum reform, has judiciously amalgamated legacy courses (core and humanities) with future courses (the one which is emerging and will emerge). The diversification of the course is done keeping in view the need for 21st-century work-places. The workplace demands students having global, environmental and societal awareness that can provide solutions and innovation for the societal benefit.

The innovations and initiatives encompass the depth and breadth of programmes. The commitment was also to introduce lifelong learning through enrichment courses, and value-added courses among other equally important ancillary courses.

Courses such as Critical Thinking, Ethics and Values will impart holistic development, whereas the industry oriented courses will provide smooth transition from campus to corporate without riders.

The following new courses are taught at the undergraduate level:

i. Yoga
ii. Critical Thinking
iii. IT & Network Security
iv. Ethics & Values
v. Capstone course
vi. Fractional Credit – Short Course by the eminent expert
vii. Community Services
viii. English/Foreign Languages
ix. Communication Skills for Engineers
x. ICT Tools
xi. Engineering Economics
xii. Law for Engineers
xiii. Creativity & Innovation
xiv. Organizational Behaviour
Institute uses pedagogical tools to train students to handle professional responsibilities. These include, an appropriate mix of in-house and visiting faculty lectures, expert lectures, discussions, seminars, project, assignments and visits to industries and project sites. Continuous evaluation and counselling are important parts of the academic programme.

**Extensive Learning Mechanisms**

- Rigorous coaching & continuous evaluation
- Credit based system with a weightage of different components of study
- Learning through classroom teaching, practical work, industry visits, project work and video lectures through multimedia
- Academic rigour and innovative pedagogical tools
- Emphasis on field-based projects and interaction with practitioners
- Faculty guidance and advisory system with Faculty as Counselors to students
- Continuous enhancement of Communication Skills
- Promoting the use of computers in every learning activity
- Continuous up-gradation of knowledge and skills
- Active participation of students in creative co-curricular activities

**Courses and Assessment**

Nirma University has a credit-based evaluation system. It is devised to motivate students for systematic and continuous study. Term assignments, laboratory and project work are given great importance and are continuously assessed. Moreover, there is a Semester End Examination for theory courses. The institute has also initiated several measures to bring the curricula and assessment system of its programmes in conformity with international norms. Open book examination is one of them. Provision is also made for remedial teaching wherever necessary.

Special attention is given to improve English language and Communication skills of the students. Supplementary courses that promote self-development, societal and environmental awareness are also offered. For talented and motivated students, there is a provision of Audit courses. These are additional and optional courses to cultivate familiarity with emerging or advanced interdisciplinary topics.

**Discipline - The Keyword**

The Institute has earned a name for quality education. This is due to efforts and devotion of well-qualified faculty of the institution. The academic calendar for the whole year is notified in the beginning and is strictly adhered to. Students attendance is compulsory and the shortfall is notified. It is expected from every student that he/she should conduct himself/herself with discipline, decency and dignity both inside and outside the campus. The institute sends progress reports of the students to their parents periodically intending to keep them informed.

**Counselling**

Student counselling is a distinguishing feature of the institute. Each faculty member is assigned about 15 students. The faculty meets them periodically and reviews their attendance, submissions, academic performance and provides necessary guidance for improvement. In addition to this, the Institute also provides the services of a professional psychological counsellor who can be approached for any other issues that hinder the learning processes of the students.
Research

Research activity at the institute university is not just a philosophy, but the very essence of all academic endeavours. Hence, faculty members as well as students are actively involved in research.

Research Laboratories:

Heavy Structures Laboratory:

Heavy Structures Laboratory (HSL) is a state of art facility in the Civil Engineering Department, catering to the need of experimental investigation on various structural components/structural systems under gravity and lateral loading conditions. The laboratory measures about 800 sq. meter and comprises of a 6 m × 28 m strong floor with a number of loading frames & advanced instrumentation.

Centre of Excellence in Data-Science

The Centre of Excellence (CoE) in Data Science, established in collaboration with the State University of New York at Binghamton provides an excellent platform for the development of innovative applications and research in the field of Data Science and Artificial Intelligence (AI). The CoE focus is to advance the state of the art in Data Science and to offer training and consultancy services to industry and academia. This will facilitate experts from both campuses to be addressing problems that are critical to both nations, India and the US in the field of Data Science and AI.

National Laboratory For Testing And Development Of Thermal Insulations:

The Mechanical Engineering Department has established a first of its kind laboratory in the country for the testing and development of thermal insulations as per various National and International Standards. The Laboratory is the outcome of a project under the National Facilities in Engineering and Technology with Industrial Collaboration (NAFETIC) Scheme of the All India Council for Technical Education (AICTE), New Delhi. The facilities available in the Laboratory include a Guarded Hot Plate System used for thermal conductivity determination in the temperature range of -10 ºC to 350 ºC according to ASTM C177 and ISO 8302. The laboratory facilities are being actively utilized by various industries for the testing of the quality of thermal insulations.

Centre of Excellence in Robotics and Automation

The Centre for Robotics and Automation has been established in 2019 to accelerate the research and advancement in the field of robotics. The centre is a common platform for all the researchers working in the area of Robotics and Automation. The center is equipped with state of art research facilities such as a 6 axis collaborative robot with 10 kg payload and compatible with open source programming tools, a 5 axis articulated arm with 1 kg payload capacity for initial research, hydraulic and pneumatic trainer kits for test and experimentation, to add a few.

Technical Paper Writing Clinic

Technical Paper writing clinic workshop are regularly organized by Institute of Technology, Nirma University for the PhD students and faculty members who are pursuing M.Tech, PhD from Institute of Technology, Nirma University. Experts from reputed academic institutes and eminent researchers are invited to conduct the programme.
**Research and Publication details**

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**Agencies for Research Funding**

- Department of Science and Technology (DST)
- Space Applications Centre (SAC-ISRO)
- Defense Research & Development Organization (DRDO)
- Board of Research in Nuclear Sciences (BRNS)
- Gujarat Council on Science and Technology (GUJCOST)
- Gujarat State Biotechnology Mission (GSBTM)
- Duke Plasto Techniques Pvt. Ltd.
- Stabicoat Vitamins
- SERB-DST
- IC-IMPACTS
- European Space Agency
- Institutions of Engineers (India)
- Institute of Plasma Research (IPR)

**Funded Research projects and Consultancy**

- Number of Consultancies: 1849
- Revenue from consultancy (Rs in lakhs): 283.58
- Number of funded projects: 124
- Revenue From funded project (Rs in lakhs): 934.2
## PhD Graduates List

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<td>Nimkar Samir Chandrakant</td>
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<td>Nimish Rajnikant Shah</td>
<td>Dr. Raju Mewada &amp; Dr. Tejal Mehta</td>
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<td>Gandhi Sanjay Prapatbhai</td>
<td>Dr. S. S. Patel</td>
<td>Catalytic carbon dioxide reforming of methane to synthesis gas</td>
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<td>Shah Hardik Satishchandra</td>
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<td>Studies on feasibility of some water quality trading aspects with end-of-pipe treatment augments: Towards enhancement of environmental performance in firms and CETPs</td>
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<td>Pardiwala Julie Minoo</td>
<td>Dr. S. S. Patel</td>
<td>Studies in Spinel Catalysts for Photocatalytic Degradation of RB21 Dye in Wastewater</td>
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<td>Sharma Sandip Prahladhbai</td>
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<td>Bora Leena Vijaykumar</td>
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<td>Dave Sweta P.</td>
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<td>Strengthening of Axially Loaded Circular Concrete Columns using Stainless Steel Wire Mesh (SSWM)</td>
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<td>Joshi Digesh Dilipkumar</td>
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<td>Study the Behaviour of Precast Connections Under Progressive Collapse Scenario</td>
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<td>Performance Measurement of Scientific Grid Roadmap to e-Science</td>
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**INSTRUMENTATION & CONTROL ENGINEERING**

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<td>Oza Virang Hareshchandra</td>
<td>Dr. N. M. Bhatt</td>
<td>Performance Analysis of a Solar Refrigeration System</td>
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</table>
NCC activities at Nirma University started in the year 2016. There are two NCC units (army), one Senior Division (SD) for boys and other Senior Wing (SW) for girls. NCC Boys unit is affiliated to 9-Gujarat Battalion Headquartered at Ahmedabad and NCC Girls unit is affiliated to 1-Gujarat Girls Battalion Headquartered at Ahmedabad. The authorized strength of Boys and Girls is 55 each. NCC Cadets have achieved accolades as best cadets, best shooter rifle firing, leadership in annual training camp, etc.
Sports Activities

“Sport is where an entire life can be compressed into a few hours, where the emotions of a lifetime can be felt on an acre or two of ground.”

Institute of Technology, Nirma University has the best academic facilities and the best exposure to the talents of students. Along with it, the institute also has the best sports grounds. Institute of Technology boasts to have the leading grounds for outdoor games, Cricket, football, Volleyball, Basketball, Kabaddi, Kho-Kho, Lawn tennis courts, both in clay and synthetic. It is also evident from the fact that our cricket ground was one of the venues to host the inter-university and NPL matches. Similarly, we also have good facilities for indoor sports like Table-tennis, carom, Chess, etc. Institute of Technology has a very efficient team of athletes. The team not only takes part in the sporting events held at Nirma University, but also participates in the competitions held in other Institutes like PDPU, IIM Ahmedabad, GNLU, DAIICT, etc.
Cultural & Other Activities

Cultural Festival: Cultural Festival is organized in two phases. At the first phase, the institute level competition is organized. At the second phase, the winners of the institute level competition participate in the inter institute level and university-level competition.

The events of the Cultural Festival include,

• Drama
• Mime
• Debate
• Collage
• On the spot painting
• Cartooning
• Solo Dance
• Singing - Solo
• Group Song
• Instrumental
• Skit
• Mono Acting/Mimicry
• Elocution
• Vocal
• Group Dance
• Folk Dance
• Singing - Duet
• Rangoli

Ras-Garba is organized after Navratri festival. All students, staff members, faculty members, HODs and HOIs of constituent institutes of Nirma University and officers of the University join in this festival.
**Adventure Activities**

- Mountaineering activities
- Tracking in Himalaya
- Basic rock climbing course
- Desert trekking camp
- Tracking in the forest of Gujarat (Proposed)
- Know Your Border Programme (On Motorcycle)

**Other Activities**

- National Days Celebration
- International Yoga Day
- Special Day Celebration like Flag Day, Communal Harmony Day, etc.
Extension Activities

The Institute strongly believes that the technology students are a very important stakeholder of the society. It is necessary to inculcate a sense of responsibility towards society among the students. Institute carries out various extension activities with the involvement of students, faculty, student organizations, NSS unit and NGOs.
NSS

The National Service Scheme (NSS) is an Indian government-sponsored public service programme conducted by the Ministry of Youth Affairs and Sports. NSS is a voluntary association of students in Colleges, Universities and at higher secondary schools working for strengthening a campus-community linkage.

Institute of Technology offers NSS programme for the students. There are two units of NSS – School of Engineering Unit and School of Technology Unit. Both the NSS Units are very vibrant unit. The major activities carried out in recent past are:

- Residential camp at village Motipura and Miroli
- Volunteer Teaching for the kids of Miroli village
- Volunteer Teaching for the kids of construction workers of the University campus
- Unnat Bharat Programme for the adopted village

Key Highlights

- To strengthen the community services course, duration of the course increased to 3 weeks. The revised scheme is in effect from the academic year 2019-20.
- NSS started from 2014-15. Present Registered NSS Volunteers - 400
- Activities like – Autocyclepse, Dream Campus, NVM (Nirma Volunteaching), Special Olympics, etc., are regular annual events.
- Strong financial support by the University with a special budget to carry out extension activities.
- NSS ITNU unit adopted village Motipura under the programme of “Unnat Bharat” programme.
**Spiritual Growth**

Spiritual growth is a process of shedding our wrong and unreal concepts, thoughts, beliefs and ideas, and becoming more conscious and aware of our inner being. This process uncovers the inner spirit that is always present but hidden beyond the ego-personality.

**Inspirational talk by Pujya Shri Morari Bapu**

An inspirational talk on ‘VikashYatra: Svayam Se Samaj Tak’ by Pujya Shri MorariBapu on December 16, 2016 was held at Nirma University. The illuminating and humanizing talk was attended by Dr Karsanbhai Patel, President, Nirma University and the entire teaching and non-teaching staff members of the University. In the talk, MorariBapu emphasized on improvising one’s own self for the betterment of society.

**Co-Curricular Activities**

**Idea Lab**

Institute of Technology, Nirma University has started an innovative programme called the “Idea-Lab” to support, nurture and cultivate the spirit of innovation, design, and research towards technology for meaningful purposes amongst the students. The idea-lab provides a small seed-funding for early-stage exploration of an innovative R&D project idea which can be used to build quick and simple proto-types. The ideas funded are mainly technical, exploratory, innovative with a potential to impact science and society. Many of these ideas are multi-disciplinary, involving students from different departments and institutes. Some of our idea projects have been presented at the national level, winning accolades and awards in national level competitions held by Wipro, awarded and further funded by national scientific journals or international organizations like IEEE or winning the national level competition.

In this endeavour, the students are guided technically and logistically by faculty-members as mentors. The Idea-Lab thus serves as a “Technology Incubator” and also aims to support ideas with good technology product and commercial potential to the next business incubation stage through interested entrepreneurs via external funding.
SAE-BAJA

SAE Nirma Collegiate Club established in 2010 under Institute of Technology, Nirma University is a club affiliated to SAE INDIA. It is an opportunity and platform where students from different engineering disciplines come together to form a team and participate in various national and international level competitions. Apart from the competitions, the student body involves itself in conducting lecture series and workshops. It also conducts Robocalypse and Autocalypse, an exclusive learning series for school children. Students at SAE NIRMA indulge themselves in continuous learning and get exposure to hands-on practical aspects.
ROBOCON

Team Nirma – National Winner and represented India at International event held at Tokyo, Japan

2002

Nirma University hosted National Robocon competition

2004

Team Nirma – National Winner and represented India at International event held at Kualalumpur, Malaysia

2005

Team Nirma – First Runners up

2006

Team Nirma – National Winner and represented India at International event held at Bangalore, India

2008

Team Nirma – National Winner and represented India at International event held at Pune, India

2011

Team Nirma – First Runners up

2012

Team Nirma – National Winner and represented India at International event held at Pune, India

2014

Team Nirma – National Winner and represented India at International event held at Yogyakarta, Indonesia

2015

Team Nirma – National Winner and represented India at International event held at NinhBinh, Vietnam

2018

Team Nirma – First Runners up

2019

2002

Team Nirma – National Winner and represented India at International event held at Tokyo, Japan

2003

Nirma University hosted National Robocon competition

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2015

Team Nirma – National Winner and represented India at International event held at NinhBinh, Vietnam

2018

Team Nirma – First Runners up

2019

Robocon

Robocon is an International Robotic Contest organized by ABU (Asia-Pacific Broadcasting Union) every year since 2002. The contest aims to create friendship among young people with similar interests who will lead their countries in the 21st century, as well as help advance engineering and broadcasting technologies in the region.

ABU is a union of national broadcasters of various countries of Asia-Pacific region. Each year, one of the member countries take an opportunity to host the Robocon International Event and release the Theme (problem definition) for the competition one year ahead. Based on the declared theme, every member country organizes the National Level competition and the National winners of each country compete in an International event at the host country.

Being a national broadcaster of India and member of ABU, Doordarshan organizes the national competition every year in association with some engineering institutes as an academic partner. Various engineering institutes across India including NITs and IITs take part in the event and showcase their best talent in the field of Robotics.

Team Nirma Robocon, comprising students of all the discipline of engineering and from the first year to the fourth year, has been participating consistently in the event since its inception in 2002. Team Nirma Robocon has won national championship title 8 times so far in the year 2002, 2003, 2006, 2008, 2011, 2014, 2015 and 2018 and represented India at international events at various countries like Japan, Thailand, Malaysia, Indonesia and Vietnam. The University has provided a separate laboratory equipped with all the necessary infrastructural facilities to work for the Robocon competition.
MECUP (Mitsubishi Cup)

Mitsubishi Electric India organizes Mitsubishi Electric Cup (ME Cup) every year since 2016. In the Competition, the students from pan India prepare the working automation model using Mitsubishi Electric’s factory automation products (including PLC, servo, inverter and human-machine interface, processing machine, etc.) and achieve an analogous system of intelligent manufacturing and energy-saving management application. This is a national level automation design competition held at different locations every year. Out of around 150 entries, top 35 teams are selected for the final demonstration of their project.

Instrumentation and Control Engineering Department, Institute of Technology, Nirma University won Silver Cup three times in 2017, 2018 and 2019. The gold cup was won in 2020 which consists of Rs. 1.00 lakh prize money and sponsored trip to Japan to all team members.
The Centre for Entrepreneurship at Nirma University was established in October 2014 to provide students with the entrepreneurial opportunities, mentoring, networking, and incubation support to fuel their entrepreneurial drive and enhance their skillsets for their future endeavours. The Centre organizes curricular as well as extra-curricular entrepreneurial activities across all institutes. The activities are well organized and administrated by the student body called E-Cell. E-cell is run by the students of Nirma University and driven by the Centre. At E-cell, the students learn important and useful aspects of entrepreneurship.

### Activities:
- a. Hackathon
- b. Leadership Talk
- c. Workshop
- d. Expert session
- e. Field visit
- f. Entrepreneurship Awareness Camp
- g. Networking with Alumni /Industry

### Pre-Incubation Centre

### E-Cell

### Institute Innovation Cell

![No. of Participants in E-Cell Activities](chart.png)

<table>
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<th>2017-18</th>
<th>2018-19</th>
<th>2019-20</th>
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<tbody>
<tr>
<td>Participants</td>
<td>700</td>
<td>1055</td>
<td>1230</td>
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Industry-Institute-Interface

Introduction

Industry Institution Interaction Cell was established in the campus with an aim to develop industry linkages and to address the training and placement needs of the students. Create and sustain relationships between institute and industry is also one of the significant activity carried by III Cell every year.

Industry Institute Interface

III Cell firmly believes in ‘Industry-Institute Interface’. In order to accomplish this, it organizes technical talks and seminars to provide a learning platform for the budding engineers to interact with professionals from various industries. It encourages visits to the industries by the students along with their mentors. It facilitates internships, trainings and industrial problems to be worked on by students as part of their projects. It also takes suggestions from industry fraternity regarding designing/revising of syllabus/curriculum. It has also signed MOUs with industrial organizations.

Training

As an experiential approach to learning is a necessity and requirement for today’s learning style. Our Training program scheduled as per the University curriculum for the UG & PG students of Engineering and MCA. III cell sees that the student do their training in full earnestness at the leading organizations. They are encouraged to take live project from the Industry under the faculty guidance. Training is also imparted in developing their soft skills by specialized trainers. As this plays an important part in their career development and get employed in leading organizations.

Campus Placement

Reputed organisations visit ITNU campus each year for the hiring of final year UG and PG students. During 2020 campus hiring season highest package gone up to INR 29.95 LPA compared to last year’s INR 28.75 LPA. Average package of students increased to INR 6.13 LPA compared to last year’s INR 5.44 LPA. III Cell aims to provide one student one job and to achieve its goal, III Cell works towards enhancing industry institute interface activity and closely working with key organisations towards understanding their requirements and recognizing the core competencies of Students. It works through a close knit organization and has a structure which conveys information to the students at the fastest possible rate so that students start preparing themselves prior to the commencement of campus hiring activity. So that recruiting organisations get industry ready talent pool.

Average Salary

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<td>2017</td>
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<td>2018</td>
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<td>2019</td>
<td>5.44</td>
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<td>2020</td>
<td>6.13</td>
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### Campus Hiring Partners

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<tr>
<td>Samsung</td>
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<td>Essar</td>
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<td>Tata Power</td>
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<td>Ford</td>
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<td>AUTOINDO</td>
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Recruiters’ Speak

Richard Luptovsky
Infosys Technologies Limited
Top of form. We recruited from Nirma University because the students here are hard-working and they were eager to learn from their internships.

Jody Briggs
Microsoft India Private Limited
We are impressed with the calibre and quality of the candidates which have been sourced by Ultimate Skills.

Bakul Avarani
SAI Consulting Engineers Pvt Ltd
We, Sai Consulting Engineers Pvt Ltd has been conducting placements at Nirma University since more than eight years for engineering students for our fresher’s requirements. We have found the placement cell to be on their toes always to ensure a 100% placement. This cell works out placement strategies based on current as well as future job markets and takes into account the emerging job profile so that these may provide upward mobility in the career-graphs of their students.

Paddy Timmons
Mahindra & Mahindra Limited
Thank you for all your help and assistance, was a pleasure dealing with you, you gave/displayed the utmost professionalism at all times and a credit to yourself.

Mr Subir K Ghosh
Cognizent
Overall we are getting professional service and prompt response. Those who have joined through your organization have contributed a lot as per the expected position/role.

Mr Sanjay Patel
Adani
We have always been able to rely on your Company to be discreet and find a suitable candidate who fit our needs. Candidates have been honest, and hardworking which is very important in the countries we operate in.

Sadath
Factset Research Systems
We are very excited and happy to recruit students from NIRMA. The entire recruitment process was good. Students were disciplined, well-groomed and to be world-class software engineers. We look forward to a continued mutually enriching relation with Nirma.

John Murphy
Wipro
We selected Nirma University because of their innovative approach to sourcing candidates that are not on job boards, eliminating the need for consultants due to the quality of their onsite team and recruiters.

Dr Gopalji Sinha
Essar Learning Centre and Talent Acquisition
We feel privileged in selecting students of Nirma University. The students are sincere, intelligent and hardworking and undertake various responsibilities. In some areas, they have become key pillars and are sharing key responsibilities. We feel that before joining Essar, they have been specially groomed by the faculties of Nirma University and that learning is making them seek various challenging responsibilities.
MoUs

The institute emphasizes the importance of linkages at national and international level to cater to the core areas of research and development in form of cooperative research, transfer of technology, curriculum development, continuing education programmes like MDP/FDP/customized and need-based programmes, testing and consultancy, development of industrial manpower, expert lectures by industry experts, students’ projects, industrial visit, internship, training and placement, student and faculty exchange, intellectual property sharing, sharing facilities and patent development.

Some of the prominent linkages with industries, research organizations and Educational Institutes are:

**MoU With Industries**
- Tata Motors Limited, Mumbai
- J K Lakshmi Cement Limited, Gandhinagar
- INFOSYS Technologies, Bengaluru
- Mitsubishi Electric India Pvt. Ltd., Pune
- Secure Meters Limited, Udaipur
- NORD Drive Systems Pvt. Ltd., Pune
- Tata Consultancy Services iON
- Gujarat Industrial Development Corporation, Gandhinagar
- IBM Technologies, Bengaluru
- InspirOn Engineering Pvt. Ltd., Ahmedabad
- Confederation of Indian Industries (CII)
- Robert Bosch Engineering and Business Solution Pvt. Ltd. (RBEI), Bangalore

**MoUs with Research Organizations/Educational Institutions**
- ITER India, Gandhinagar
- Institute of Plasma Research, Gandhinagar
- Satellite Application Centre, Indian Space Research Organization, Ahmedabad
- Central Building Research Institute, Roorkee
- Ahmedabad Textile Industry’s Research Association (ATIRA), Ahmedabad
- Physical Research Laboratory, Ahmedabad
- Central Salt and Marine Chemicals Research Institute (CSMCRI), Bhavnagar
- Advanced Materials and Processes Research Institute (AMPRI), Bhopal
- National Chemical Laboratory (NCL), Pune
- Sardar Patel Renewable Energy Research Institute (SPRERI), V.V. Nagar
- INS Valsura, Jamnagar, Gujarat
- Building Energy Efficiency Project (BEEP)

MoU between Nirma University and Sardar Patel Renewable Energy Research Institute, V.V. Nagar
Dignitories at Thermal Insulations Laboratory

MoU between NU and Inspiron Ltd., 2011

Shri Ambubhai Patel, Dr. K Kotecha, Prof. U. A. Patel and Prof. J. G. Jamnani with participants from Indian Air-force at Executive training programme for engineers of Indian Air Force, 2008, IT-NU

Dr. K Kotecha, Shri Ambubhai Patel and Shri Bipinbhai Patel while signing MoU between Vatva Industrial Association and Nirma University, 2008, IT-NU

Dr. N.V. Vasani and Dr. P. K. Kow, Director of Institute for Plasma Research signing the Memorandum of Understanding on January 31, 2012

MoU between Nirma University and Sardar Patel Renewable Energy Research Institute, V.V. Nagar, 2009

MoU between NU and Nirma University and Sardar Patel Renewable Energy Research Institute, V.V. Nagar, 2009

MoUs between NU and IBM & Infosys Technologies Ltd. 2011

MoU between NU and Inspiron Ltd., 2011

MoU between Institute of Technology and Robert Bosch, Bengaluru, 2020
MoU with TATA Motors April 2019

MoU between Institute of Technology and Indian Navy - INS Valsura, 2019

MoU with CSMCRI May 2019
International Academic Linkages

The global collaborations with universities and industries enhance the quality of education adopting the dynamics of 21st-century education. The activities that are designed to promote, develop and strengthen the international tie-ups include student exchange, faculty exchange and joint research based on equality and mutual benefit.

Following are some of the international linkages:

1. Florida Atlantic University, USA
2. Binghamton University, USA
3. University of Southern California - USC Viterbi School of Engineering, USA
4. Carleton University, Canada
5. Coventry University, UK
6. Wadhwani Operating Foundation, USA
7. University of Newcastle, Australia
8. The University of Dundee, UK
9. Curtin University, Perth, Western Australia
10. Universidad Publica de Navarra Nafarroako Universitate Publikao, Spain
11. The ITER International Fusion Energy Organization, France
12. Memorial University of Newfoundland, Canada
13. Iowa State University, USA
14. University of Georgia, USA
15. University of Nairobi, Kenya
16. Kampala International University, Uganda
17. Makerere University, Uganda
18. Royal Melbourne Institute of Technology (RMIT), Australia

International Relations with East Africa, Feb 2020

Signing of MoU between Nirma Institute of Technology and Florida Atlantic University, USA

ITNU Interns at US Universities

ITNU Alumni at San Francisco_Aug 2010

Dr Mehul R Naik, Head IR visiting UAE_Kenya_Kuwait_Singapore
MoU with California State University (CSUSB), 2011

Rutgers University, 2010

ITNU Alumni at San Francisco, Aug 2010

USC, US Visit 2010,

Stanford, US Visit 2010

U of New Castle Australia visiting ITNU, Feb 2018

Dr Xingquan Zhu from FAU delivering workshop on Data Science at ITNU, March 2019

Dr Arun Somani from ISU visiting ITNU, Aug 2018

Prof Raghu from USC visiting ITNU, March 2018

Dr Vasani at FAU, Dr Borko Furht, 2005

MoU with University of Southern California, IT-NU

Prof. Raghu from USC visiting ROBOCON Lab, March 2018

Rutgers University, 2010

MoU with California State University (CSUSB), 2011
Awards and Achievements

Many awards have been received by institute as a recognition of the high standards achieved across the departments as a whole in every field of education, be it curricular, co-curricular or extra-curricular. In curricular aspects, there is continuous upgradation of curriculum that includes the subjects dealing with latest technology, overall development, environment awareness, etc., taking inputs from all the stakeholders.

The teaching-learning process and evaluation includes a number of innovative methods. A number of co-curricular and extra-curricular activities are conducted by students’ associations in various disciplines by students, which give them ample scope to showcase their abilities and talents. This has resulted in the institutions, although young, receiving a large number of awards and rankings, some of which are shown here.

A team of students of Mechanical Engg., IT-NU participated in National Level Automobile Competition (BAJA SAE 2012) and won the First Prize for Technology Innovation.

IT-NU National Robocon Winner 2002

IT-NU National Robocon Winner 2011

IT-NU National Robocon Winner trophy with Dr. APJ Abdul Kalam, 2003

IT-NU National Robocon Winner 2003
Dr. Sandip Trivedi receiving "ISTE- Best Teacher Award", 2002

Dr. N. V. Vasani at ISTE Convention- 2002 receiving National Award for "Best Engineering College"

Dr. H. V. Trivedi receiving "Best Engineering College Principal" Award-2002 from Dr. R. Natrajan

Dr. P. N. Tekwani receiving the "ISTE-SGSITS National Award for Best Research by Young Teacher of Engineering Colleges", 2009

Prof. S.J. Joshi receiving "ISTE Best Engineering College Teacher Award" for Gujarat, 2006

Dr.Ketan Katecha, Director, ITNU receiving "ISTE Best Faculty Chapter Award", 2009

Dr. N. P. Gajjar receiving "ISTE- Best Teacher Award" for Gujarat, 2005

Prof. Dhaval Pujara receiving "ISTE- Best Teacher Award" for Gujarat, 2004
Dr. N. V. Vasani, Prof. A.B. Patel and Dr. T.P. Singh receiving "ISTE- Best Faculty Chapter Award", 2004

Dr. A. K. Singh, receiving ‘ISTE BEST Engineering College Teacher Award’ for Gujarat, 2009

ISTE Best-Faculty chapter award received by Dr. Madhuri Bhavsar, IT-NU, 2010

Team SAE Arrow National Winner, July 2019

Winner of Ashrae Quizo March 2019

Gold Award Maker Fest Vadodara Jan 2020

J. Ruparelia Best Engineering College Teacher

IEI Young Engineer Award 2019
#2 Nirma University Ranked 2nd among the Universities in the State of Gujarat
Source: Gujarat State Institutional Ranking Framework (GSIRF), Govt. of Gujarat, 2020

#131 Institute of Technology Ranked 131st in Best Engineering College in India
Source: National Institutional Ranking Framework (NIRF), 2020

#2 Ranked 2nd among all Central/Deemed/State Private Universities in Gujarat State and is listed AAAA Category
Source: Careers 360, 2020

#101-150 Nirma University Ranked 101-150
Source: National Institutional Ranking Framework (NIRF) MHRD, Govt. of India, 2020

#4 Ranked 4th in Top 50 Private State Universities
Source: Outlook-ICARE India University Rankings 2020

#4 Ranked 4th among Top Engineering Colleges of Super Excellence in India
Source: CSR-GHRD, 2020

#2 Ranked 2nd among all Engineering Institutes (overall) in West Zone
Source: Times of India Ranking 2020

#23 Ranked 23rd amongst National Ranking by Digital Learning and is listed AAAA category
Source: Digital Learning Engineering Survey, 2019

#9 Ranked 9th in Research Capability among all Engineering Institutes (overall) in India
Source: Times of India Ranking 2020

#23 Ranked 23rd in Top T-Schools (Overall) in India
Source: DataQuest Survey 2019

#9 Ranked 9th among all Engineering Institutes (overall) in India
Source: Times of India Ranking 2020

#1 Ranked 1st among all Engineering Colleges in Gujarat
Source: CSR-GHRD, 2020

#2 Ranked 2nd in top 50 Private State Universities
Source: Outlook-ICARE India University Rankings 2020

#4 Ranked 4th in Top Engineering College for Placements, USP, Social Responsibilities, Networking & Industry Interface
Source: CSR-GHRD, 2020

• 15th in private engineering colleges (July 6 2020, India Today, Vol. 45 No. 27, Private Engineering Colleges 2020)

• 2nd in State rankings, Private engineering institute’s (April 2020 Education World Vol 21 No 04 Ranking Private-Engineering-colleges State Ranking)

• 4 Star in GISRF Ranking 2020

• 29th among top 110 private Engineering Institutes, (Outlook, September 2020)

### PRIVATE ENGINEERING COLLEGES ALL INDIA

<table>
<thead>
<tr>
<th>Rank</th>
<th>College</th>
<th>City</th>
<th>Composite Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Birla Institute of Technology and Science, Pilani</td>
<td>Pilani</td>
<td>931</td>
</tr>
<tr>
<td>2</td>
<td>IIT Madras</td>
<td>Chennai</td>
<td>902</td>
</tr>
<tr>
<td>3</td>
<td>IIT Roorkee</td>
<td>Roorkee</td>
<td>898</td>
</tr>
<tr>
<td>4</td>
<td>IIT Kharagpur</td>
<td>Kharagpur</td>
<td>896</td>
</tr>
<tr>
<td>5</td>
<td>IIT Bombay</td>
<td>Mumbai</td>
<td>881</td>
</tr>
</tbody>
</table>

### PRIVATE ENGINEERING COLLEGES - WEST ZONE

<table>
<thead>
<tr>
<th>Rank</th>
<th>College</th>
<th>City</th>
<th>Composite Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Lalkumaran Namboothiri College of Technology</td>
<td>Coimbatore</td>
<td>268</td>
</tr>
<tr>
<td>2</td>
<td>RV College of Engineering</td>
<td>Bengaluru</td>
<td>218</td>
</tr>
<tr>
<td>3</td>
<td>RV College of Engineering</td>
<td>Bengaluru</td>
<td>218</td>
</tr>
<tr>
<td>4</td>
<td>RV College of Engineering</td>
<td>Bengaluru</td>
<td>218</td>
</tr>
<tr>
<td>5</td>
<td>RV College of Engineering</td>
<td>Bengaluru</td>
<td>218</td>
</tr>
</tbody>
</table>

### Top 100 Private Engineering Institutes league table

<table>
<thead>
<tr>
<th>Rank</th>
<th>Institute</th>
<th>City</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IIT Bombay</td>
<td>Mumbai</td>
</tr>
<tr>
<td>2</td>
<td>IIT Madras</td>
<td>Chennai</td>
</tr>
<tr>
<td>3</td>
<td>IIT Kharagpur</td>
<td>Kharagpur</td>
</tr>
<tr>
<td>4</td>
<td>IIT Roorkee</td>
<td>Roorkee</td>
</tr>
<tr>
<td>5</td>
<td>IIT Kanpur</td>
<td>Kanpur</td>
</tr>
</tbody>
</table>

### Top T-Schools (Private)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Institute</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Birla Institute of Technology and Science</td>
</tr>
<tr>
<td>2</td>
<td>IIT Roorkee</td>
</tr>
<tr>
<td>3</td>
<td>IIT Kharagpur</td>
</tr>
<tr>
<td>4</td>
<td>IIT Bombay</td>
</tr>
<tr>
<td>5</td>
<td>IIT Madras</td>
</tr>
</tbody>
</table>

### Top 25 Engineering Colleges Ranked by Faculty, Research, Consultancy, EDP & Other Programmes

<table>
<thead>
<tr>
<th>Rank</th>
<th>College</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Indian Institute of Technology, Kharagpur</td>
</tr>
<tr>
<td>2</td>
<td>Indian Institute of Technology, Delhi</td>
</tr>
<tr>
<td>3</td>
<td>Indian Institute of Technology, Bombay</td>
</tr>
<tr>
<td>4</td>
<td>Indian Institute of Technology, Roorkee</td>
</tr>
<tr>
<td>5</td>
<td>Indian Institute of Technology, Guwahati</td>
</tr>
</tbody>
</table>

### TIMES ENGINEERING INSTITUTE RANKINGS 2019

<table>
<thead>
<tr>
<th>Rank</th>
<th>Institute</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>IIT Bombay</td>
</tr>
<tr>
<td>2</td>
<td>IIT Madras</td>
</tr>
<tr>
<td>3</td>
<td>IIT Kharagpur</td>
</tr>
<tr>
<td>4</td>
<td>IIT Roorkee</td>
</tr>
<tr>
<td>5</td>
<td>IIT Kanpur</td>
</tr>
</tbody>
</table>

The objective of this research is to arrive at a list of top engineering colleges offering full-time courses, including four-year courses in India.}

### TOP 140 ENGINEERING INSTITUTE RANKINGS 2019

1. IIT Bombay
2. IIT Madras
3. IIT Kharagpur
4. IIT Roorkee
5. IIT Kanpur
6. IIT Guwahati
7. IIT Delhi
8. IIT Roorkee
9. IIT Kharagpur
10. IIT Bombay
11. IIT Guwahati
12. IIT Delhi
13. IIT Roorkee
14. IIT Kharagpur
15. IIT Bombay
16. IIT Madras
17. IIT Kharagpur
18. IIT Roorkee
19. IIT Kanpur
20. IIT Guwahati
21. IIT Delhi
22. IIT Roorkee
23. IIT Kharagpur
24. IIT Bombay
25. IIT Madras
26. IIT Kharagpur
27. IIT Roorkee
28. IIT Kanpur
29. IIT Guwahati
30. IIT Delhi
Top Private T-Schools 2018

<table>
<thead>
<tr>
<th>College Name</th>
<th>City</th>
<th>Rank 2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bharati Vidyapeeth Deemed University</td>
<td>Chennai</td>
<td>2</td>
</tr>
<tr>
<td>Bannari Amman Institute of Technology</td>
<td>Erode</td>
<td>1</td>
</tr>
<tr>
<td>B.S. Abdur Rahman Crescent Institute of Science and Technology</td>
<td>New Delhi</td>
<td>70</td>
</tr>
<tr>
<td>Institute of Technology, Nirma University, Ahmedabad</td>
<td>Ahmedabad</td>
<td>11</td>
</tr>
<tr>
<td>New Horizon College of Engineering</td>
<td>Bangalore</td>
<td>12</td>
</tr>
<tr>
<td>R.M.S. Institute of Technology &amp; Management</td>
<td>Ahmedabad</td>
<td>13</td>
</tr>
</tbody>
</table>

Academic Environment

<table>
<thead>
<tr>
<th>Rank</th>
<th>City</th>
<th>Total score (2300)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Bharati Vidyapeeth Deemed University</td>
<td>2078</td>
</tr>
<tr>
<td>24</td>
<td>Nirma University, Ahmedabad</td>
<td>1762</td>
</tr>
<tr>
<td>65</td>
<td>DA Degree College of Engineering and Technology, Mehsana</td>
<td>1331</td>
</tr>
</tbody>
</table>

Placement Scores

One of the deciding parameters, a look at the placement scores reveals Bharati Vidyapeeth Deemed University College of Engineering took the top slot followed by Bannari Amman Institute of Technology and C.V. Raman College of Engineering, Bhubaneswar.

Top 10 Placement Based on HR Scores 2018

<table>
<thead>
<tr>
<th>Institute Name</th>
<th>City</th>
<th>Placements Rank, 2016</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ganesha Lal Bhajji Institute of Technology &amp; Management</td>
<td>Gautam Buddh Nagar</td>
<td>8</td>
</tr>
<tr>
<td>Institute of Technology, Nirma University, Ahmedabad</td>
<td>Ahmedabad</td>
<td>9</td>
</tr>
<tr>
<td>B.S. Abdur Rahman Crescent Institute of Science and Technology</td>
<td>Chennai</td>
<td>12</td>
</tr>
</tbody>
</table>

CSR-GHRDC Engineering Colleges Survey 2019

<table>
<thead>
<tr>
<th>Name of the Engineering College</th>
<th>Year of Establishment</th>
<th>Government Autonomous</th>
<th>NAAC</th>
<th>On Campus Hostel Facilities Available</th>
<th>P.U. / Follow Programme in Engineering</th>
<th>Mode of Enrolment</th>
<th>JEE / SLET / Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indian Institute of Technology, Kharagpur, West Bengal</td>
<td>1951</td>
<td>Government Autonomous</td>
<td>NAAC</td>
<td>Yes</td>
<td>Yes</td>
<td>34</td>
<td>JEE / JEE / Others</td>
</tr>
<tr>
<td>Institute of Aeronautical Engineering, Hyderabad, Telangana</td>
<td>2000</td>
<td>Private Autonomous</td>
<td>NAAC</td>
<td>Yes</td>
<td>No</td>
<td>24</td>
<td>SLET / Others</td>
</tr>
<tr>
<td>Institute of Technology, Nirma University, Ahmedabad, Gujarat</td>
<td>1994</td>
<td>Private</td>
<td>NAAC</td>
<td>Yes</td>
<td>Yes</td>
<td>40</td>
<td>JEE / JEE / CEET</td>
</tr>
<tr>
<td>1st Narm College of Technology, Bhopal, Madhya Pradesh</td>
<td>2003</td>
<td>Private</td>
<td>NAAC</td>
<td>Yes</td>
<td>Yes</td>
<td>34</td>
<td>JEE / SLET / Others</td>
</tr>
</tbody>
</table>
Apart from the Curricular activities, the institute initiates, supports, encourages and appreciates a myriad of co-curricular activities beyond classrooms in the form of national and international events. These events provide a platform for all the stakeholders to showcase their contribution to the quantum of knowledge, to learn from the expertise and contribution of the other participants and to broaden their knowledge and outlook of people, places, culture and enterprise. The institute invites social, political and corporate honchos to interact with students, faculty and experts, thus creating a win-win situation for all.

Listed here below, are some of prominent events:

**Indian Science Congress**

The 92nd Indian Science Congress was organized by the university and National Institute of Occupational Health (NIOH) at the Nirma University campus from January 2 to 7, 2005. It was inaugurated by the then Hon. Prime Minister of India Dr. Manmohan Singh and addressed by the then Hon. President of India Dr. A.P.J. Abdul Kalam.

**ISTE Annual Convention :**

The 30th ISTE Annual Convention on ‘Shaping Technical Education for the Future’ was hosted by Nirma Institute of Technology from 14-16, December, 2000. The Chief Guest of the event was Hon’ble Shri Keshubhai Patel, then Chief Minister of Gujarat.

**IGC 2005**

The Indian Geotechnical Conference IGC 2005 was organized from 17-19 December 2005 at Nirma University campus.

**ADCOM 2004**

The 12th International Conference on Advanced Computing organized by the Advanced Computing Society (ACS), IEEE Gujarat Section and Computer Society of India Ahmedabad Chapter was hosted by Nirma University on December 16-18, 2004.
Praveg 2017

Praveg 2016

VLSI Design & Test, 2015

Yoga Day, 2019

Career Guidance Seminar

Band Performance by Indian Army
NUiCONE

Nirma University International Conference on Engineering (NUiCONE) is a flagship event of the Institute of Technology, Nirma University. So far, four national conferences (NUCONE 2006 to 2009) and seven international conferences (2017 to 2019) have been organized on various themes of relevant professional trends. NUiCONE is a multidisciplinary event encompassing themes related to various disciplines of Engineering & Technology. The objective of the conference is to bring professional engineers working relentlessly for the sustainable development technologies from industry, academics, research organizations, and research scholars of matching interests on a common platform to share new ideas, experiences and knowledge in various fields of Engineering and Technology. The technical programme of conferences consisted of peer-reviewed paper presentations in parallel technical sessions, keynote lectures, presentations by industry professionals, panel discussions, session-wise expert talks and poster presentations.

Collaboration with various professional bodies had been carried out while conducting the conferences. Some of them are IEEE, Institution of Engineers (India), ASHARE, IGBC, ASCE-India Section, NVIDIA, ISA, SAEINDIA, ISGF, GBCI, SPE, Synoptek, Canadian Society of Civil Engineers. Experts from industry and reputed academic institutes of India and abroad had been invited to deliver the keynote address and expert lectures during the conferences.

The Proceedings of the conferences are published with M/s EXCEL Publishers, Procedia Engineers, ELSEVIER, CRC Press, Taylor and Francis.
Dignitaries on the Campus

Dr. Xingquan Zhu from FAU delivering workshop on Data Science at ITNU, March 2019

Dr. Paul Chiarot, SUNY Binghamton, New York @ ITNU

Dr. Marcello Lappa University of Strathclyde Glasgow, UK with his wife @ ITNU

Dr. Hussam Jouhara, Brunel University London, UK @ ITNU

Dr. Mamoru Koketsu, Professor, Gifu University, Japan has delivered Expert Talk @ ITNU

Dr Claire Komives, San José State, San José, CA, USA

Dr. Abhijit Pandya and Dr. Hashemi from FAU visiting ITNU, Nov 2019

Dr Subramaniam Swamy
Shri Manohar Parrikar

Smt Nirmala Sitaraman, Defence Minister, Govt of India

Team of Secure Meters, Udaipur

Dr Javad Hashemi, Associate Dean for Research and Professor Department of Ocean and Mechanical Engineering

Shri Piyush Goyal

Shri Vijay Rupani

Fulbright Specialist Prof. Daniel Abrams University of Illinois at Urbana-Champaign, USA in JAN 2019
Alumni Connect

Nirma Institute Of Technology Alumni Association (NITAA)

NITTA has been established by Nirma Institute of Technology to maintain a life long association with Alumni and subsequent interaction with students and institute faculty. With active participation of Alumni, members are the strength of NITAA. It is noteworthy that the Alumni are spread all across the globe for higher studies as well as for jobs.

Objectives of NITAA

The association shall have the following broadly identified objectives in the field of Engineering and allied branches.

1. To establish and maintain contact between the past students, present students and the Nirma Institute of Technology.

2. To pursue and sustain excellence in Education through interaction between the alumni, faculty and present students of Nirma Institute of Technology.

3. To strengthen Industry-Institute-Interaction and operate related activities for the benefit of students of Nirma Institute of Technology.

4. To extend all assistance and co-operation to the institute in its endeavours for the growth and development of education and research in the field of technology.

5. To institute scholarships and awards for deserving past and present students of the Nirma Institute of Technology for educational and research purposes as per the terms and conditions to be laid down by the Board of Management.

6. To encourage and assist the students of the Nirma Institute of Technology in various academics and cultural activities.

7. To establish endowments by donation to extend financial and other assistance to deserving past and present students of the Nirma Institute of Technology for educational and research purposes as per the terms and conditions mutually decided with Board of Management.

8. To establish endowments by donation to create Chair/s of Professor/s Emeritus in Nirma Institute of Technology in professional and related areas.

9. To generate funds through donation for conducting activities for achieving the objectives of the association.

10. To create fellowship for the Alumni to pursue post-graduate studies or research.

11. To project constructive activities of Nirma Institute of Technology in India and abroad.

12. To provide a common platform for the exchange of ideas and disseminating knowledge in professional areas.

13. To perform any other constructive activities leading towards the enhancement of the skill and knowledge of the members of the association.

NITAA offers free scholarship for the needy students since 2008-09.
Alumni Members: 19000+

Registered Alumni on ALMA Connect: 10000+

Gives Student Scholarship: 290+

Scholarship worth Rs. 59 Lacs+

Publishes SETU Magazine: Since 2000

Alumni Meet: 3+ Every Year

Alumni Meet @ San Jose, USA in May 2017

Alumni Meet @ Hyderabad in February 16, 2020
Chirag Chauhan  
(M.E. EE Alumni, 2002-2004)  
Owner, Enlec Solutions, Ahmedabad, Gujarat, India

I got an opportunity to study at Nirma Institute of Technology during the year 2002-2004 to pursue my Master of Electrical Engineering. We got benefited with excellent infrastructure & systematic approach in education. We got the opportunity to have hands-on experience on the latest software's related to Electrical Engineering and that had helped us to get different identity wherever we had worked. We are very much thankful to Nirma.

Nandan Tripathi  
Senior Manager in Architecture Group, NVIDIA Graphics Pvt Ltd, Bengaluru  
The batch of 1998-2002, BTech (Electronics and Communication Engineering)

The four years of my undergraduate studies in the Department of Electronics and Communication were instrumental in shaping my career. The sound technical knowledge, exposure to best practices and motivation from my teachers gave me an edge over others and helped me gain confidence. I shall always cherish the time spent at the Institute of Technology.

Royson Rajan  
Founder/Managing Director, Atlas Soft Web Pvt. Ltd.

The five years that I spent as a student at NU have been crucial in shaping the person I am today. NU provided me with dedicated faculty, excellent resources, and a learner-friendly environment where I could discover my strengths and work on them. My entrepreneurial aspirations were encouraged and supported by the institute. Apart from this, I made lifelong friends and professional connections from my time at NU. For anyone with a thirst for learning and innovation, NU is an ideal place.

Dr. Hitesh Shrimali  
Assistant Professor in the School of Computing and Electrical Engineering at IIT Mandi  
Batch of 2000-2004, B.E. - Instrumentation & Control

It was my dream to pursue higher studies from IIT Kharagpur. The Institute of Technology is the one, which gave me a strong foundation in Engineering. The Professors in the Department made difficult subjects easy through their precise and motivational approach. The Department has all the required equipment to provide a practical understanding of engineering. The strong foundation in fundamental subjects during my graduation helped me to do high-quality research in the advance field of CMOS analog IC Design resulting in more than 25 peer-reviewed international journals.

Dhaval Shah  
Director, Nessa Illumination Pvt Ltd, Ahmedabad Batch of 1997-2001, BTech (Electronics and Communication Engineering)

Technical knowledge, discipline and time management skills that I gained during my undergraduate studies at the Department of Electronics and Communication Engineering have helped me throughout my further studies and later in my professional career. I would like to sincerely thank my Professors of the Department for the knowledge and grooming that I received at their hands which have shaped me as a successful professional today.

Ms Forum Desai Parekh  
Co-Founder, Solids and Automation Technologies  
Batch of 2008-2012, B.E. - Instrumentation & Control

Nirma University has been a stepping stone in my journey towards entrepreneurship. The prestigious institute not only guarantee the best academics but overall development. The Instrumentation and Control Engineering Department had been instrumental in helping me to get control of my life. The institute gave me a platform in the form of various student chapters/societies like Robotech, ISTE, ISA which played a key role to shape my entrepreneurial and leadership skill.
Amar Patel
Director of Engineering Powerdyn Energy Pvt. Ltd, Ahmedabad (India)
He is also Founding Partner Buttercupp – A Cupcake Shoppe, Ahmedabad (India)

My decision to pursue Mechanical Engineering was pivotal in my academic career. I attribute my academic success as a post-graduate of a top US university and my professional success as a former Senior R&D Engineer of a Fortune 500 company to the rigorous classroom teachings and laboratory sessions at the Institute of Technology.

The state of the art facilities here is in the hands of world-class well-trained faculty members. The professors have years of teaching experience under their belt and together this creates an ideal environment to mould young aspiring engineers to become professionals that can hit the ground running. Nirma is the place I can consider my future generation(s) to become part of.

Mr. Gaurav Joshi
B.Tech Mechanical (2010-2014)
IRSME officer, Indian Railways.

ITNU is not just the name of an institute, but it’s a symbol of confidence and trust for me. The skills and qualities which I learned here are one of my constant support lines in my both personal and professional life. I am very grateful to the faculties and other staff for all the support they provided.

The program so powered packed, both academic and extracurricular, that I still wonder how quickly those 4 years passed. There was so much to do and when I look deep into memories there are thousands of moments to cherish. Along with lectures, labs and workshop sessions, the Institute and faculties encouraged us to participate in various events. Events like SAE-BAJA, events in MESA taught the very important team building lessons. I got an opportunity to create a rock band with my friends and as expected, also faced the real-life struggle to keep running the band. It was a happy learning time. Along with all these, I made friends here who are like family now. I wish we all will again sit together in the garden outside ‘W’ block and sing our favourite mechanical song.

Rahil Dave
Technical Team Leader, Procon Technologies Pvt. Ltd.
Batch of 2010-2012, M.Tech.- Control & Automation

During my post-graduation studies in Institute of Technology - Nirma University, I got to know and feel the difference between a College and an Institution. From the academics to soft skills, Nirma University has played a major role in strengthening them. We are quite fortunate to have such global standards institute around us, which systematically nurtures an engineering student to a good professional. In the last 25 years, Nirma University has set its standards quite high and is continuously working towards pushing them to new highs. We carry the pride of Nirma University wherever we go and it has played an important role in making us what we are today. The contribution of Nirma University is immense in Nation Building as well as putting India on a global map in the form of their alumnus. On behalf of all alumnus, I wish Nirma University the heartiest congratulations on the completion of its Silver Jubilee.

Sanket Gohil
Managing Director, Shreeji Engineers, Ahmedabad
The batch of 1998-2002, B.Tech (Chemical Engineering)

Nirma has been a stepping stone to my career and provided the right environment for learning, skills and all-round development. It provided me with a platform to join my 1st company, Thermax Limited, through campus recruitment from where I never looked back working for great companies like DOW & Mann Hummel before starting my entrepreneurial venture - Shreeji Engineers. I wish all the aspiring Engineers, Managers and Entrepreneurs a great success in life.

Nirav Parsania
Vice President, Reliance Industries Ltd.
The batch of 1996-2000, B.Tech (Chemical Engineering)

Our Alma mater has helped me immensely by imparting not only technical knowledge but soft skills, which are critical for career growth in the corporate world.

Khyati Shah
Process Engineer, Intel OR (USA)
The batch of 2012-2016, B.Tech (Chemical Engineering)

Nirma with all its esteemed and dedicated faculty gave me the necessary guidance and instilled in me the knowledge to learn about and pursue my interest in Nano Engineering at an esteemed university in the USA.
Parents’ Speak

Nilesh M Desai
Associate Director
Sapce Application Center
ISRO, Ahmedabad

Message on the eve of Completion of Silver Jubilee Year of the Institute of Technology, Nirma University, Ahmedabad.

It gives me immense pleasure to note that Institute of Technology, Nirma University, Ahmedabad, is completing its Silver Jubilee Year celebrations on October 3, 2020. At the outset, on this auspicious and happy occasion, I convey my best wishes to the students, Faculty and Other Staff Members as well as Management Board Members as well as all the stakeholders of the Institute, for completing this remarkable and distinguished journey of 25 years, since its inception.

It is heartening to learn that the Institute is today ranked, amongst some of the top self-financed institutes in the country as well as amongst the top few in the State of Gujarat. I am thankful to the Institute for giving me the opportunity to contribute intellectually in different activities of the institute. I have thoroughly enjoyed my almost ten years of association with the institute (which is still continuing), in various capacities, as member of the Board of Studies (BOS)-Electronics & Communication Engineering Department, member of Faculty of Engineering and Technology (FOTE), Organising Committee member & faculty of various Workshops, Seminars and National & International Conferences organized at the institute; and as a mentor & guide of institute students and faculty members for their project works. I have always found that the Institute provides a very stimulating academic environment and lively culture, to the students, researchers and faculty members. It also encourages and promotes research & innovations and provides a platform for deliberations and discussions to researchers and faculty members, through its unique Directorate of Research and Innovation (DRI), set-up four years back.

More than as a professional associated with the institute, I am also happy to reveal my profound admiration and gratitude for the Institute of Technology, Nirma University, as a proud parent of my elder son, Tanmay Desai, an alumni of the institute. He completed his post-graduation studies as the student in the first batch of M. Tech. (Embedded Systems) during the years, 2012-2014. The exposure he got at the institute, through its theoretical and practical training, helped him tremendously to shape his professional career subsequently as Electronics Engineer, and survive in the highly competitive private sector. We will always remain indebted to the institute of Technology for this obligation. The success and admirable placement record of the institute is attributed to the quality teaching-learning process, research and a very committed faculty.

Both, as a parent and as a professional researcher of SAC/ISRO, I convey my greetings and best wishes to the Institute of Technology, Nirma University, Ahmedabad and its various stake holders, for a very bright and successful future ahead.

(Nilesh M. Desai)
MESSAGE

I will be always grateful to the Civil Engineering Department, Nirma University for building the personality and enhancing the career path of my son.

I would like to take this opportunity to appreciate the Civil Engineering Department, each and every faculty members for their untiring efforts and dedication in developing the future of every students. The beautiful campus of Nirma University and the infrastructure has been developed in such a way that makes the 4 years journey of B.Tech very comfortable as well as memorable.

The department and the university at large, has always focused on the all-round development of students. Be it sports or cultural activities or technical competitions, the department has always encouraged and supported students’ choices. As the department has its own technical club OrCES, students have a numerous opportunities in exploring the technical knowledge beyond their regular course curriculum. Over and above, I like that every day begins with the prayer.

I am glad that the university emphasis the regularity of students. As a parent, I would also like to know if my child is regularly attends the classes or not. I appreciate the system of informing parents if their child’s attendance falls short. In one or the other way, the department always make sure that the student is developing the virtue of patience, ethics and discipline in their nature and in day to day practice.

In addition to this, I must appreciate the teaching-learning pedagogy adopted by the department. The continuous evaluation is really helpful for the students to track on their own progress at the same time it gives more number of opportunities to students to show case their understanding of the course. Not only the classroom teaching, but the department arranges site visits, expert lectures, software training etc. which really helps the students in visualizing the concepts. This holistic development makes the students market ready and compatible enough for their placement.

I wish the department more glorious years ahead and congratulate the institute on the occasion of silver jubilee year.

(P.R. Patelia)

Chief Engineer (NH) & Addl. Secretary
Roads & Building Department
Sachivalay, Gandhinagar
Durgesh Shah  
*Ambimat Electronics, Ahmedabad*

My son, Neel Shah, was a student of the EE department from 2006 to 2010. He graduated with a B.Tech in Electrical Engineering in 2010.

As for my personal reviews about the Institute the first thing that I noticed before getting Neel admitted was the campus and the infrastructure of the institute. It gave me a lot of confidence that Neel had decided to stay in Ahmedabad and study at the Institute of Technology, Nirma University. Neel got some really good technical understanding about the subjects from the faculty at the institute. I would like to specially mention Mr. Amit Patel and Mr. P N Kapil as being the two faculty members who had a profound influence on shaping Neel as a technically competent engineer and a good human being.

On a non-technical front Neel got good exposure in leadership skills by being a part of the Electrical Engineering student Association and the Rotaract Club of Nirma Institutes. This exposure played an important role in helping him get admission at one of the most prestigious engineering colleges in the world, University of Pennsylvania for his Masters Degree in Embedded Systems.

Today Neel works at Ambimat Electronics as the VP of Product and Design and leads a team of engineers. He solves technical and commercial challenges for the team today and I am certain that all of this is possible with the continuous support of the Institute of technology, Nirma University.

Warm Regards  
**Durgesh Shah**

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Dr. -Ing. Suryakant B. Gupta  
*Scientific Officer – G, Institute for Plasma Research*  
*An Aided Institute of Department of Atomic Energy, Government of India*

Expert faculties of Instrumentation and Control Engineering Department have provided an encouraging and conducive research and development environment to my daughter Ms. Somya Gupta throughout her study at Institute of Technology, Nirma University. Due to continuous motivation and guidance by the department faculties, she received prestigious International Scholarship from International Society of Automation, USA for consecutive two years. My best Wishes to this great Institution!
Dr Dileep S Iyengar & Dr Pratibha Dileep
Parents of Dhananjay Dileep
16BCH013, Institute of Engineering
Nirma University, Ahmedabad
13th September 2020

Dear Professor,

We were invited to express ourselves about the experience that our son had at Nirma during his Undergraduate years.

Dhananjay Dileep, our son, joined Nirma four years ago, a callow youth who had been in the same school with the same set of friends. For him, college was a very different experience. He learnt to make new friends. The change from a school atmosphere to that of a college was quite smooth, thanks to Nirma and its character.

He is a brilliant boy, but it was Nirma and the wonderful faculty which identified his talent and channelized his energy in the proper direction. The concept of Idea Lab is unique and conducive to original thought and research.

We as parents were thrilled to see such a green and sprawling campus. We were also happy that the students were very well mannered and disciplined.

Our son and we found the faculty very friendly and responsive. They went out of their way to help the students whenever they felt the need and they encouraged intellectual freedom as well.

The extracurricular and co-curricular activities like TEDx, talks by various eminent scientists and engineers were very contributory.

The setting up of tie-ups with universities abroad for projects and further studies is a very welcome initiative.

The cultural festivities “Vaudeville” and ChESA Annual day were exciting to attend for him.

It has been a great life changing experience for him and for us at Nirma University.

It is a lovely place to watch your child grow into an adult.

There are so many things that can be said but we are constrained by space and time.

Given another opportunity to choose a college for our son and for him to choose again, we would unhesitatingly choose Nirma above the rest.

Truly it brings meaning to the phrase “Asato ma Sadh gamaya, Tamaso ma Jyotirgamaya”

Thank you NIRMA and its wonderful faculty for everything

Dr Dileep S Iyengar
Sr Consultant Oncologist
Dr Pratibha Dileep
HOD Critical Care Both at Zydus Hospitals, Ahmedabad
The celebration of 25 years of the establishment of the Institute of Technology was a yearlong affair that began on October 3, 2019. A string of events, apart from the publication of this booklet, was lined up to make this celebration memorable. These events are described as below:

**National Workshop/Seminars**

- An International Webinar on “Advance Materials In Science And Technology-2020” was organized on 11th September 2020. The Event had received more than 500 registrations. Panel of Speakers included Dr. Mahendra Sunkara (Director, Advanced Energy Materials, Center for Renewable Energy Research, University of Louisville, Kentucky, US.), Dr. Vijay Kumar Thakur (Professor, Biorefining and Advanced Materials Research, Centre @ SRUC, Edinburgh, UK and School of Aerospace Transport & Manufacturing, Cranfield University, UK), Dr. Sanjay Patel (Professor and Head, Chemical Engineering Department, School of Engineering, Institute of Technology, Nirma University, Gujarat, INDIA) and Dr. Shashikant Joshi (Professor, Mechanical Engineering Department, School of Engineering, Institute of Technology, Nirma University, Gujarat, INDIA).

- A Meditation Workshop on “Health and Happiness” was organized on 15th February 2020. The workshop was conducted by alumni Ms. Akanksha Desai. The expert briefed everyone about the various dimensions of wellness like physical, intellectual, emotional and interpersonal and also highlighted the importance of exercise and meditation in day to day life.

- A two day National Seminar on “5G Wireless Technology” was organized on 14th-15th February 2020. The seminar provided a platform for discussion of key concepts of the 5G Wireless Technology, such as Radio Access Network, Physical Layer, MAC Layer, Air Interface, Spectrum and mm-Wave Implementation, Internet of Thing (IoT), Multiple Access Schemes and Simulation Software for Design of 5G Systems. The seminar was inaugurated by renowned professor and academician, Dr Ajit Kumar Chaturvedi, Director, Indian Institute of Technology, Roorkee and had experts from IIT-Kharagpur, Ericsson, Gurgaon, NanoCell Networks Pvt Ltd, Bangalore, Qualcomm, Bangalore, Arastu System, Ahmedabad, Nokia, Bangalore, Tektronix India Pvt Ltd, Mathworks, Bangalore to deliver a talk and a Valedictory Session of 5G Wireless Technology.
demonstration of the software ‘WinProp’ for the propagation analysis and radio channel planning of 5G by experts from Altair.

- A Two day National conference on “Recent Advancements in Materials science And Nanotechnology (RAMAN)” was organized on 30th July - 01st August 2020. The organizers had received support from various national agencies such as the GUJCOST, and DRDO for its execution. Dr. Suddhasatwa Basu, Director, IMMT (Bhubaneswar) was Chief Guest of the inaugural function of the event. The invited talks were delivered by the prominent academicians and scientists of the country and abroad as well. During the conference, various eminent professors have delivered their invited talk including Prof. Robert Pullar (University of Aveiro, Portugal), Prof. Nandu Chaure (Pune University), and scientists Dr. Brahmananda Chakraborty (BARC, Trombay) and Dr. Sudhindra Rayaprol (UGC-CSR, BARC).

- “Instrumentation and Control Alumni Entrepreneur’s Meet” was organized on 21st December 2019. The alumni who are currently entrepreneurs and successfully running their own business were invited to share their success stories among the peer group. There were 23 alumni participated in this event. The meet had provided a platform to these alumni to showcase their business model and provided a networking opportunity among the peer group.

- Workshop on “Modern Electronics Measurement Instruments and Simulation Tools” was organized on 3rd October 2019 for the Students of ITI, Vastral.

- A GUJCOST sponsored workshop on “VLSI Design and Testing” was organized from 4th – 8th November 2019. The entire workshop was designed with an emphasis on the hands-on activities and simulations using EDA tools. The experts from the premier institutes and industry delivered talks on various aspects of the front and back end VLSI designs and related EDA tools. Dr Sudeb Dasgupta, Professor, and Head, EC Department, IIT-Roorkee, delivered a talk on the Modern Semiconductor Devices. The experts from eInfochips and Entuple Technologies also shared their expertise with the participants.

- A Ministry of Electronics and Information Technology (MeitY) sponsored Faculty Development Program (FDP) on “VLSI Chip
Design Hands-on using Open Source EDA was organized from 16th -19th December, 2019. The FDP was conducted by Professors from IITs, NITs, and experts from SCL-Chandigarh. The programme covered varied topics like Basics of RISC-V Processor-based SoC Design using MAGIC Tool, Standard Cell Library Design, Pre-layout Timing Analysis, Chip Planning and Block Level Routing using Open Source EDA, Hierarchical Placement/Routing and LVS/DRC using MAGIC and Post-Layout Timing Analysis.

- A two-Day workshop on “RISC-V Boot Camp” was organized jointly with SiFive, Bangalore during 2nd – 3rd March 2020. The workshop was aimed for the faculty members, research scholars, Industries and R&D personals. It included key concepts of the open RISC-V instruction set architecture and hands-on FPGA development board. More than 150 participants have attended this workshop.

- A Seminar on “Welding as Career- The Untold Success Story” was organized on 25th June 2020 in Collaboration with Fronius India Pvt Ltd. Mr Devendra Gope, Business Development Manager of Fronius India Pvt Ltd, presented the exhausted view of current developments in welding and career prospectus for in welding.

Webinars

- “Developing an entrepreneurial mindset” by Mr. Rachit Oza
- “Life Lessons from Indian Army” by Capt. Dharmveer Singh
- “Public lectures in the domain of spirituality - Three Lessons from Gita” by Shri Rasa Parayana Dasa
- “5G Technology for Industrial Automation” by Rahul Kaushik
- “Deep Learning in 2020” by Harsh Munshi
- “Life Aspirations, Risk Taking and Decision Making” by Harsh Satyapanthi
- “Role of Instrumentation & Control Engineer in the field of Process safety” by Murtaza Gandhi
- Webinar series on various aspects of “Industrial Instrumentation and Automation” by Alumni
- Webinar series on “Placement Mantra by Senior Friends”
- “Computer Vision Research: From Undergraduate to PhD” by Mr Samarth Brahmbhatt
- “Journey from Nirma B Tech EC to Apple, USA” by Mr Bhavin Nayak
- “Eye-tracking - An Application of Computer Vision and Machine Learning” by Mr Rakshit Kothari

**Alumni Interactions**

- S-M-A-R-T skills: The journey of an average Chemical Engineer by Mr. Umang Yagnik
- Importance of operational excellence by Mr. Arjun Bhardwaj
- Outlines of Core Industries after B-Tech by Mr. Jayshil Mehta
- The scope of a Chemical Engineer as a Food Scientist by Ms. Misha Patel
- Goals, aspirations, and the way forward for a Chemical Engineer by Dr. Nilanjana Banerjee
- Design of Storm Water Management & Treatment of water supply & Wastewater system by Ms. Megha Bhatt
- Good Construction Practices by Mr. Harishchandra Jakhmola
- Slip Formwork Technique by Mr. Harishchandra Jakhmola
- Entrepreneurship & Ethics in Civil Engineering by Mr. Nikunj Dave
- Carrier Opportunities in Management by Ms Jinal Parikh
- Avenues for Civil Engineers by Ms Payal Trivedi
- Competitive Exam Preparations by Mr Prasana Salsiya and Ms Nandita Sungandhi
- Lifting Technologies by Mr Nandish Pethani
- Carrier Opportunities in Government Sector by Mr Deep Shah, Mr Sheryash Hardya and Mr Rahul Upadhyay
- Role of Civil Engineering by Mr. Shreyansh Shah
- Career opportunities in Post Covid Scenario by Mr. Utsav Shah
- Online Alumni Meet 2020

- Expert lecture by Alumni Mr. Virendra Gajjar on “VLSI Industry: Expectation and Trends” (Folder Name: FinalPhotos FileName: 024)
- Expert Lecture by alumni on “Software Testing” by Dr Vaishali Dhare/Mr Nirav Patel
- Expert Lecture by alumni on “My Journey from Nirma to Google” by Mr Kathan Shukla
- Expert lecture by alumni on “My Contribution and Journey with Indian Space Programme” by Mr Parimal Govani
- Expert Lecture by alumni on “Little Things to Know, Before Stepping In” by Mr Rakshit Goyel, Mr Shivang Dalal, Ms Aditi Bhatnagar
- Meeting of EC faculty with Alumni serving at Space Applications Center, Ahmedabad

**Expert Lectures**

- Latest technology in the filtration industry by Mr. Sanket Gohil
- Stormwater management and design by Ms. Khushali Mehta
- Precast Technologies by Mr Darshit Zaveri
- Necessary Preparation Tips for Competitive Exams & Further Studies by Mr. Abhay Gandhi, Ms. Kriti Agrawal, Mr. Prem Shah, Mr. Dakshesh Chaudhary, Mr. Deepak Agrawal and Mr. Tejaswi Nema
- Industry trends and expectations, various career and study options by Ms. Misree Vachhani
- Soft Skills for Placement Interview and Professional Career by Mr. Vaibhav Pagedar
- Trends in Embedded and Automobile Electronics by Mr. Sharang Parnerkar
- Installation of Commercial and Industrial Rooftop PV Systems by Mr. Aziz Popat
- Electrical Engineering - The way forward by Mr. Chandresh Dobariya
- PM motors, Magnetic materials and recycling of magnets by Mr. Pranshu Upadhyay
- Entrepreneurship Opportunities for Electrical Engineers by Mr. Jwal Trivedi
- Role of Electronics in Electrical Engineering by Mr. Naman Raval
- Expert lecture on “Money, Mind and Meditation” by Mr. Pratik Kapoor
• Traction System Components: Overview and Recent Trends by Mr. Urmil Bhatt
• Expert Lecture on Vegetation, Agriculture, Data fusion and Machine Learning by Dr. Keely Roth, Climate Corp, USA
• Overcoming Fear, Stress and Anxiety by Shri Rasa Prayana Dasa, Inspirational speaker & mentor, Hare Krishna Temple and a member of the Akshaya Patra Foundation
• System Engineering by Prof. Jitesh Thakkar, National Rail and Transportation Institute (NRTI)
• Expected Learning Attributes in Graduate Engineers by Mr Sitanshu Bhatt
• Automation and Industry 4.0 by Mr. Kashyap Ramaiya
• Meeting the Future Challenges and Industry Expectations by Mr Sanjay Desai
• Disruptive Technology in Design by Mr Bhagyesh Patel
• Basics of Microfluidics and Its Application to Biomedical Device by Prof Amit Agrawal, IIT Bombay
• Droplet Deposition on Solid Surface: Applications in understanding survival of coronavirus on a surface by Prof Rajneesh Bhardwaj, IIT Bombay
• Paper-based Microfluidics and It’s Application for Diseases Diagnosis by Prof Suman Chakraborty, IIT Kharagpur
• Advanced Quality for Manufacturing by Mr. T. Suresh
• Heat Transfer Analysis by Dr. C M Sewetkar
• Applications of Industrial Hydraulic Systems by Mr. Girish Joshi
• Wall Turbulent Flows by Dr. S. Vengadesan, Professor, Department of Applied Mechanics, IIT Madras
• Net Zero Energy Building by Mr. Yash Shukla
• Advancements in Additive Manufacturing and Friction Welding processes by Dr Antonello Astarita, University of Naples Federico II | UNINA, Italy
• Life management by Shree Rohinidasji Swami, Hare Krishna Movement, Bhadaj
• Role and future of Engineers in Power plant sector by Mr. Rakesh Tiwari
• Electric Vehicles by Mr. Nitin Banait
• Advanced Practices in Thermal Engineering by Dr. Ravikumar, Professor, IIT Roorkee
• Rise of Industry 4.0 by Mr. Yogesh Bhatt, Vice President, Ericsson AG, USA
As we look back at our journey in the pursuit of excellence in higher education, we are happy and proud to have achieved much in such a short duration, having crossed several milestones and established ourselves as a brand. Several of our dreams have been fulfilled. At the same time, observing globally, we notice that the journey ahead is equally long as well as equally challenging, if not more. We are aware that we need to consolidate our potential, muster our energies, focus on the goals, clear our vision and rededicate ourselves to the mission we began with. Some of the key areas we intend to put our efforts into are stated below:

- Strengthening our efforts to convert teaching into learning and the use of latest digital technology tools
- Encourage to bring out and develop a culture of research and innovation among students and faculty members
- Evolving the system of introduction of enrichment subjects
- Amalgamation of Legacy courses (core and humanities) with Future courses (the ones which are emerging and will emerge)
- Strengthening the counselling process as a support system for students
- Strengthening placement, including international placement
- Exploring new areas of interdisciplinary research
- Establishment of centres of excellence in the emerging areas of engineering and technology
- Creating institute social partnership for socio-economic growth
- Enrichment of the Entrepreneurship Cell for pre incubation among students
- Establishment of Incubation Centre for Start-up
- Theme based Research Park leading to international level research leading to increase in Intellectual property such as patents.
- Enhancement of Residential Campus facility for student to increase infrastructure/ lab facility utilization.