#ASHTAG

Vidya Vikas Education Trust's
Universal College of Engineering
Gujarati Linguistic Minority Institution

Applied Science and Humanities Department

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UNIVERSAL

VISION

The Department of Applied Science and Humanities is committed to dynamically integrate the components of Science, Humanities and Engineering to groom students to transform them as globally acknowledged professionals.

MISSION

The department is carrying a mission to create and disseminate the knowledge and techniques in intellectual areas of engineering and other core areas of Applied Science and Humanities for betterment of Eco system.

To inculcate the importance of Applied Science and develop a natural flair for Engineering and Technology which in turn shall mould students into a competent professional.

To be recognized for practicing the best teaching-learning processes to create highly competent, resourceful and self motivated young Engineers for the benefit of the society.

#5 Emerging Trends in Engineering Education in India

Every year a new trend emerges in the education sector in India. There was a time not long ago when students used to mostly prefer courses like medicine and engineering. However, those days are long gone and a shift can be witnessed wherein more and more students are willing to explore fields that showcase their skills, talent and interests. Nevertheless, engineering as a course has not lost its sheen even after all these years and there are still a large number of students enrolling themselves because of evolving technologies. Many universities and colleges are now adopting new and refined learning methods like modern learning labs and technology-integrated curriculum. These universities have also revamped their programs in their pursuit to be at par with the global standards.

Hands-on learning

At present, there is a blend of both hands-on learning and traditional lecture learning. The hands-on learning programs allow students to use classroom materials in real-world applications such as the 3D printing labs, state-of-the-art research labs thus empowering their skills and ideas. Students learn faster, comprehend knowledge and are able to solve critical problems in the real-world environment.

Industry-specific Programs

There are many colleges and institutes that have incorporated industry-specific engineering programs into classes such as Industry Partner Summit. Industry professionals and professors come together in such programs to discuss innovation, cutting-edge technologies and discoveries, tools as well as trends in the engineering sector. The courses are then regularly updated ensuring that students are abreast with the latest engineering knowledge.

#5 Emerging Trends in Engineering Education in India

Open-door Concept

Another emerging trend in the engineering education is the up gradation of facilities by colleges. They are now opting for open-concept labs to encourage students to take part in brainstorming sessions, group presentations and instructor demonstrations. The desk and chairs are being replaced with tables, laptops, technology-equipped workstations and whiteboards to visualize, design and map their thought processes.

E-learning

The course materials are no longer depended on textbooks, which has been replaced by adaptive learning software. The course materials can be easily updated with such software to ensure that students learn the most recent course material.

Enrollment in Non-technical Skills

Besides this, the engineering students also need to develop non-technical skills in addition to the main curriculum. For this, universities and colleges are encouraging students to enroll in soft-skill courses like public speaking, professional writing, and career preparation. This helps in honing their leadership skills, team-player skills and ability to communicate effectively.

Innovation and Entrepreneurship

Incubation-centers, warehouses, fabrication centers are being set up with the cooperation of the participant industry and institute. Initially, industry councils can also assist and mentor the institution until they set up on their own. Each engineering institution should have a vision to encourage innovation and entrepreneurship. This can be done by targeting specific goals giving new and challenging opportunities to the students.

Source: https://www.entrepreneur.com/article/306960

Future Of Engineering And Education

The boom in technical education, such as engineering and the numerous engineering colleges opening up without proper quality checks a few years ago, has now left the country with an excess supply of engineers who are unemployed with many of them unemployable. However, there still lies a huge scope for well trained and skilled engineers. We live in an age where technology has gone beyond imagination as to how it impacts our day-to-day lives.

The progress in simulation techniques, data capture, data reduction and others have made analyses much more refined and precise. Technologies such as 3-D printing, which enables rapid prototyping, has made the building of models much quicker. Industry 4.0, wherein advances in automation and robotics are used, have paved the way for the mass production of customized and differentiated products on the same production line.

Technology which was seen as a facilitator of our work is now core to our daily lives. From the alarm clock that wakes us up to memory mattresses, technology is integral to our survival. This change has created a need for specialization even in engineering.

Engineering and colleges

An Engineer has three primary roles to fulfill at any point in their career. Analysing the need for technology in a certain area, creating a prototype as a solution to the need and finally, replication of the prototype for mass production. Any Engineering graduate is supposed to perform any/all of the above tasks at different times during his/her career. Good institutes now provide facilities on the campus for the realization of ideas, to pursuing brilliant ideas to prototype building and also nurturing and growing entrepreneurship. Topics which enrich student's capabilities such as data analysis, data crunching and capturing data using IoT, artificial intelligence and machine learning are now part of a UG Programme in many of the reputed Engineering Colleges.

Further, mechanisms such as technology-enabled learning, and project-based learning are built into the coursework by these Institutions. Traditional domain skills like EEE, IPE, Mech. must be enriched further through courses such as IoT, Robotics and Automation, Programming techniques which provide a unique edge to graduates so that they are preferred by companies during the hiring process. Institutions have deepened their industry engagements and have introduced 'Industry-ready' training and industry driven courses.

Skills over technical knowledge

It is true that a large number of engineers who are in the market are unemployable. This doesn't mean that engineering education or the future of engineering is dark. Corporates no longer want engineers who only know how to code. They are looking at other skills and other on-the-job experience in the form of internships.
When it comes to skills, the knowledge of IoT, Artificial Intelligence, Python amongst others are considered crucial skills. Companies have become picky, and it is essential that students are able to communicate their technical prowess. Engineering has different branches and can be applied to the various fields. IT companies, the healthcare, hospitality, aerospace, roads, to heavy machinery and many others, engineering plays a vital role.

Students and Engineering

The engineering education in India is at the crossroads today. It's a chance to take the country on the next high growth trajectory by having the right manpower. Students need to ensure they are industry-ready by the end of their programme. Quality over quantity should be the focus of the system which alone can ensure that all the graduates are gainfully employed.

Source: http://bweducation.businessworld.in/article/Future-Of-Engineering-And-Education/28-11-2018-164645/

Statue of Unity also a tribute to Indian engineering skills: Larsen & Toubro

The Statue of Unity, built as a tribute to Sardar Vallabhbhai Patel known as Iron Man of India, would be the tallest in the world and the quickest to be completed in just 33 months unlike China's Spring Temple Buddha which took 11 years to complete, infrastructure giant Larsen & Toubro claimed.
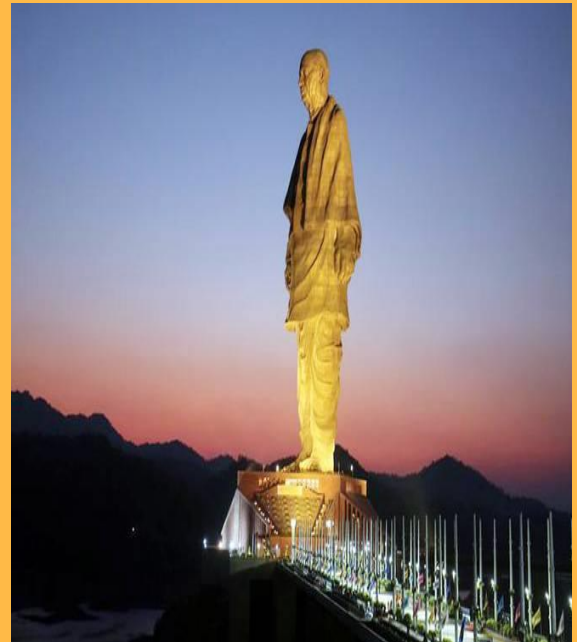
At 182 meters from the road entry and 208.5 meters from the river entry, the iconic statue is taller than the 153m Spring Temple Buddha in China and almost twice the height of the world-famous Statue of Liberty in New York.

Built at a cost of Rs 2,989 crore, the Statue of Unity project, barring bronze cladding which is a fragment of the mammoth work, has been done indigenously, L&T told PTI. The statue is located approximately 3.5 km downstream from the Sardar Sarovar Dam, on Sadhu Hill on the bed of the river Narmada.

The raft construction of the structure actually begun on December 19, 2015, and took 33 months construction time for completion. It devoured 180,000 cu m of cement concrete, 18,500 tonnes of reinforced steel, 6,500 tonnes of structured steel, 1,700 tonnes of bronze and 1,850 tonnes of bronze cladding, the conglomerate said.

L&T CEO and MD S N Subrahmanyan told PTI, **"The Statue of Unity, apart from being a symbol of national pride, and integration is also a tribute to India's Engineering skills and project management abilities."**

"Our engineering and construction teams along with the architects, the sculptor, and reputed global consultants, have realised this dream of Prime Minister to reality in a record period of time. Our commitment to scale, speed and quality in engineering has yielded this desired outcome, which is not only structurally superior but also aesthetically appealing."

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RANKED No.1 IN INDIA*

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THE TIMES OF INDIA
*among Emerging Engineering Colleges

"We welcome your thoughts into words and words into Action"

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