CADD CENTRE
Driving Digital Designs!

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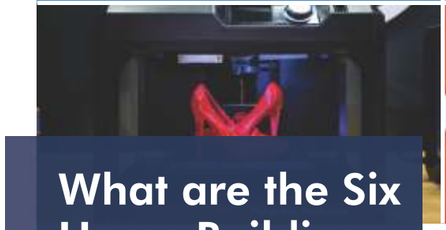
MONTHLY NEWSLETTER

CAD DZOOM

YOUR CAD / CAM HIGHWAY



What are the Six Home Building Technologies of the Future?

Technology seems to overpower our lives today and is likely to scatter in all sectors. Not only digital business but also residential construction is adopting technologies in a quick way. It is hard to find someone who is not using technology in order to comprehend routine tasks. Therefore, you can find engineers and builders to be using technology to its full potential. The future construction industry might incorporate the following technologies

1 Drones

The drones are assumed to be small and remotely controlled copters. However, these flying vehicles also have auto-pilot feature. They not only possess the capability to transport materials but also have the ability to carry humans. The future drones are expected to have a high level of intelligence with fully robotic functionalities and capability to do real work.

2 Autonomous Trucks

By the year 2040, the autonomous trucks are expected to change the home building experience completely. These trucks will auto-load, auto-dispatch, and auto-offload. Daimler has already started testing self-driving trucks. The test showed that autonomous trucks reduced 7 percent of fuel consumption and consumed less road space.

3 Robots

Robots have already started taking over some of the industries, and it will soon take over the construction industry too. With the use of construction robots, the need for the human crew to complete hard labor work will easily get eliminated. Haridon X, a robot is expected to be commercially available very soon. It has the capability of laying 1000 bricks approximately in just one hour.

4 3D Laser Scanning

3D laser scanning will play a very important role in the construction industry. The technology could help in site planning, real-time structural analysis and much more. It wouldn't be a surprise of the 3D laser scanning technology replaced the building inspectors. Incorporating this technology will improve design, security, and cost.

5 Augmented Reality

According to experts, the wearables for augmented and virtual reality will reduce in size and could be as small as contact lenses. This technology will help you inspect job sites from almost anywhere as it will create full-scale and true-life models.

6 3D Printers

China successfully 3D printed homes and large-scale structures in 2015. By the year 2040, the construction industry might witness 3D printers, printing almost everything. This technology has attracted the industry because it has the capability to print new shapes, reduces cost, and allows remote construction.

The above technologies are expected to replace time consuming man resource completely. With the rapid growth in the technology, it is impossible to predict what new technology might change the future of construction.

AecoSIM: Software Delivering High Performance Building with Confidence

AecoSIM Building Designer provides information-rich models for design, analysis, and documentation of buildings. The software is helpful to communicate design and bridge barriers between geographically distributed teams. It provides advancement of BIM so that you can deliver high-performance buildings with confidence in the designer, tools, and necessary deliverables. Following are the innovative capabilities that enhance overall project quality and generate ROI:

High-level Building Performance

Users will be able to explore and make informed decisions with the visualization of models. The software will also benefit as it resolves clashes due to built-in clash detection. In addition to it, users can explore a range of scenarios, performance solar exposure, shading analysis, and predict real-world performance.

Interoperability

Users can make use of existing data available across multiple formats and work on any other project. Thus, the model allows team members to share and communicate regarding any complex project data no matter what is authority application.

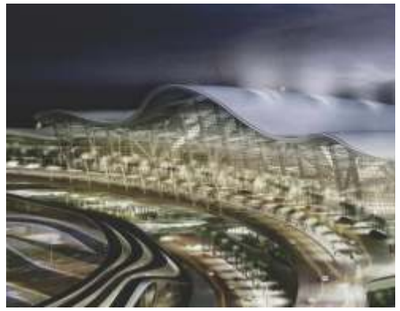
Trusted Deliverables

The software delivers reliable documents in no time because of the efficiency, robust design and production management. With AecoSIM, it will become easy to review and communicate markups of models as well as documentation by unifying production environment.

Multi-Discipline

AecoSIM Building Designer comes up with a number of capabilities such as effectively design, construct, document, analyze, and view the building of any complexity and size. It empowers teams to make informed decisions and enhance communication from the design phase through construction. In addition to it, it improves collaboration between electrical, mechanical, and structural engineers.

Hence, with AecoSIM building designer, you can easily deliver sustainable and high-performance building within no time.



AECOsim Vs Revit Architecture

Many organizations have been using Building Information Software (BIM Tools) across teams of engineers, project managers as well as cost consultants in designing infrastructures. Revit and AECOsim are two renowned BIM tools in the market. Choosing one among the two is a difficult task.

Why Revit?

- Revit is easy to use and thus to master it takes a short time.
- The “seamless” interaction has made Revit an industry standard.
- With a good customer support, Revit is often ahead of AECOsim.
- Being an industry standard, Revit holds more employment opportunities.

Why AECOsim?

- AECOsim is more robust and has more capabilities compared to Revit.
- Coordination with navigator becomes easier with AECOsim.
- The software and training expense are cheaper than Revit.
- Unlike Revit, AECOsim is more interoperable and scalable.

Both the products have been designed to offer supreme designing capabilities. However, when it comes to market reach, they have their own strengths and weaknesses. Therefore, the selection of the right tool depends on the field of work and the requirements.

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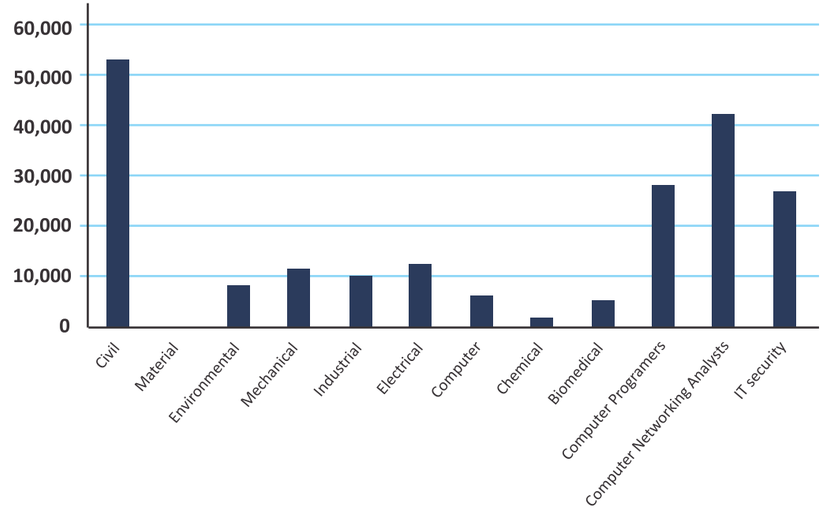
Illustrating Scope of Civil Engineers Passing out in 2018

According to the current scenario, civil is a fast growing engineering branch in India. The Civil engineering sector is craving for 400000 workforces whereas only 60,000 civil engineers are available today. As per the international conference on sustainable civil engineering, the branch of civil is filled with more than 50,000 jobs in the coming times.

Based on the last 17 years, engineering colleges offered more seats to IT & computer science in comparison to other branches. Even after adding the seats of IIT's, government colleges, and private colleges, civil engineering students are not even 10% of the whole lot. If you are a student who is aspiring to serve the country as a civil engineer, these facts are necessary for you to read.



Future Prospects of Government Jobs

Civil engineering is the second oldest branch in the field of engineering. In the past, it was known as “Military Engineering.” The future of civil engineers is very bright due to the following reasons, mentioned hereby.

- Railway Sector: Trains today that are bad in quality require maintenance and innovation towards improvement. Thus, Bullet trains are going to be a wonderful project in the upcoming times.
- Real Estate: Civil engineers will be required in construction projects, quality testing laboratory, and consultancy companies.

Country	Expected Salary Packages (Per Annum)
India	2 - 7 Lakh
America	18 Lakh
Singapore	12 Lakh

Salary Packages & Scope of Jobs in India and Outside

The qualified civil engineers can get jobs in multinational companies or say, they can work in Singapore, USA as there is an increasing need of Indian civil engineering professionals. Moreover, the packages are plentiful and vary from one country to another.

Conclusively, the wide scope of civil engineering mentioned above speaks everything in itself. If you opt for the branch of civil engineering, look on to sharpen your computer skills for better opportunities.

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Vocational Courses: Adding Skills to Civil Engineer's Career

Civil engineering deals with construction activity on a daily basis. The program offers knowledge and skills necessary to design, construct, and maintain building, dams, bridges, and so. Therefore, vocational courses for civil engineers will add specialized knowledge to the work portfolio and fulfil career goals.

Course on STAAD.Pro

STAAD.Pro software is widely used in analyzing and designing structures – buildings, bridges, towers, transportation, industrial and utility structures. Course will help you top learn understand the process of modeling, analyzing and designing a structure.

Course on AutoCAD Civil 3D

AutoCAD Civil 3D is Civil engineering software that works on BIM- Building Information Modeling tool to elevate the project performance. The course will help you learn 3D visualization, storm water analysis, and magnetic earthwork calculations.

ACM (Advanced Construction Management) Course

With the course, become a premier national knowledge and develop skills to renovate buildings and maintenance management. Recommended for postgraduate students in Advanced Construction Management.

UG- Civil: Elective Courses

Board of studies introduced two elective courses in the list of under graduate's courses for civil specialising in concrete repair, protection, and strengthening of deficient structures.

- Advanced Repair and Retrofitting of Concrete Structures
- Repair and Rehabilitation of Concrete Structures

Construction Technician

This program is specifically designed to train next generation of building construction professionals. It focuses on "zero-defect" construction philosophy. The course will also help you learn fabrication, assembly, fitting and inspection of production equipment at the site.

If you have identified your career in civil engineering, taking vocational courses will ensure better job opportunities within short term. These programs are significant and can bring enhancement to your career discipline.