

Topics that Civil Engineering researchers can explore

Civil engineers deal in the design and maintenance of roads, bridges, canals, dams, and buildings. We already have sky scrapers and irrigation facility in place. We have buildings reaching the sky, we have created roads on water, we can get water when there are no rains, water today reaches the area where there are no lakes, we can save water in the reservoir and many more things have been possible. So now what is the next challenge for the upcoming and experienced civil engineers? The challenge now lies in protecting the environment, cost cutting and exploring new ways of building the infrastructure in a more safely manner.

Civil engineers can work on developing products to reduce the carbon emissions from various products. One of them is replacing Portland cement with a use of bioethanol by product. They can work on making stronger and greener concrete. These bio ethanol fuels can be made from corn Stover, wheat straw and rice straw.

Another area of research can be developing tools which can predict the performance of the green concrete mixtures.

The era of steel has now come to a standstill, where more the usage of steel more the cost involved. Hence, civil engineers can also explore the usage of concrete panels and columns to build wind turbine towers steel turbines and building huge structures on concrete.

Liquid can withstand high temperatures, offering valuable minutes in the case of a fire. Engineers should work on ways where Liquid granite can be used maximum in constructing a structure.

Due to ever-increasing transportation on road, engineers can now work on creating roads under the water. This can be canal like structures. However, if worked upon well they can also work on creating building structures which can be served as a hotel or a restaurant under the water and these places can become a great tourist attraction. To build these structures, they will have to work on the flow of the water, the stability of the structure in high and low tides and many other water properties.

Due to lack of space in the city, engineers will now have to look to expand the city in a vertical way as it is now very difficult to undergo deforestation and build buildings. Engineers will now have to research on making maximum utilization of the smallest available space for him.