

# Definition of Environment

- **Defined as that whole outer physical and biological system in which man and other organism live – is a whole, albeit a complicated one with many interacting components.**

The wise management of that environment depends upon an understanding of those components: of its rock, minerals and waters, of its present and potential vegetation, of its animal life and potential for livestock husbandry and of its climate.

# Introduction



[Petronas Twin Towers](#) were the world's tallest building from 1998 to 2004.

Civil Engineering is a professional engineering discipline that deals with the design, construction and maintenance of the physical and natural built environment, including works such as bridges, roads, canals, dams, and buildings. It is the oldest engineering discipline after military engineering.

May 25, 2011

# Branches of Civil Engineering



## ☐ Structural Engineering

- ☐ Wind engineering
- ☐ GIS
- ☐ Materials Engg.
- ☐ Coastal Engg
- ☐ Surveying
- ☐ Construction Engg.

## ☐ Transportation Engineering

## ☐ Geotechnical Engineering

## ☐ Water Resources Engineering

## ☐ Environmental Engineering

# Civil Engineering Education

Civil engineers typically possess an academic degree with a major in civil engineering. The length of study for such a degree is usually four years and the completed degree is usually designated as a Bachelor of Engineering, though some universities designate the degree as a Bachelor of Science. The degree generally includes units covering Physics, Mathematics, Project management, Design and specific topics in civil engineering. Initially such topics cover most, if not all, of the sub-disciplines of civil engineering. Students then choose to specialize in one or more sub-disciplines towards the end of the degree.

# Careers



There is no one typical career path for civil engineers. Most engineering graduates start with jobs of low responsibility, and as they prove their competence, they are given more and more responsible tasks, the details of a career path can vary. More senior engineers can move into doing more complex analysis or design work, or management of more complex design projects, or management of other engineers, or into specialized consulting.

# Environmental Engineering



A filter bed,  
a part of [sewage treatment](#)

Environmental engineering deals with the treatment of chemical, biological, and/or thermal waste, the purification of water and air, and the remediation of contaminated sites, due to prior waste disposal or accidental contamination. Environmental engineers can be involved with pollution reduction and green engineering.

Environmental engineering also deals with the gathering of information on the environmental consequences of proposed actions and the assessment of effects of proposed actions for the purpose of assisting society and policy makers in the decision making process



May 25, 2011



[Burj Dubai](#), the [world's tallest building](#), currently under construction in [Dubai](#)



[Petronas Twin Towers](#) were the world's tallest building from 1998 to 2004. Designed by Architect [Cesar Pelli](#)



Hoover dam



Clifton Suspension Bridge,  
designed by Isambard Kingdom  
Brunel, in Bristol, UK