

Introduction

✓ **Process engineering**

Process engineering focuses on the design, operation, control, and optimization of chemical, physical, and biological processes through the help of systematic computer-based methods. Process engineering encompasses a vast range of industries, such as petrochemical, mineral processing, food, pharmaceutical and biotechnological industries.

✓ **Civil engineering**

Civil engineering is a professional engineering discipline that deals with the design, construction, and maintenance of the physical and naturally built environment, including works like roads, bridges, canals and buildings. Civil engineering for Am is traditionally broken into several sub-disciplines including architectural engineering, environmental engineering, geotechnical engineering, control engineering, structural engineering, transportation engineering, urban engineering, water resources engineering, materials engineering, aerospace engineering, quantity surveying, construction surveying, and construction engineering. Civil engineering takes place in the public sector from municipal through to national governments, and in the private sector from individual homeowners through to international companies.

✓ **Mechanical engineering**

Mechanical engineering is an area of science concerned with the behavior of physical bodies when subjected to forces or displacements, and the subsequent effects of the bodies on their environment. The scientific discipline has its origins in Ancient Greece with the writings of Aristotle and Archimedes (see History of classical mechanics and Timeline of classical mechanics). During the early modern period, scientists such as Galileo, Kepler, and especially Newton, laid the foundation for what is now known as classical mechanics. It is a branch of classical physics that deals with particles that are either at rest or are moving with velocities significantly less than the speed of light. It can also be defined as a branch of science which deals with the motion of and forces on objects.

✓ **Electrical engineering**

Electrical engineering is a field of engineering that revolves around the study and application of electricity, electronics, and electromagnetism. At its core, electrical engineering is concerned with understanding how electrical energy can be generated, transmitted, and utilized efficiently and safely. One of the key aspects of electrical engineering is power systems, which involves the generation, transmission, and distribution of electrical energy to homes, businesses, and industries.