

Fluid Mechanics – General Interests

Civil Engineer: Concerned with the hydrodynamic transport of river sediment, flood and erosion control, and with hydraulic effects associated with irrigation, dams, piping systems, and sewage transport, treatment and disposal. Also concerned with aerodynamic forces induced by flows around buildings and structures, such as stadiums, malls and skyscrapers.

Mechanical Engineer: Concerned with fluid machinery such as compressors, turbines, propellers, pumps, fans, blowers, windmills, and sprinklers; with engine performance and cooling, such as IC engines, ramjets, turbofans, and turboprops; with heating, refrigeration, and ventilation . . .

Aeronautical Engineer: Concerned with flow around bodies in connection with the production and control of lift and drag, and with aircraft design parameters.

Aerospace Engineer: Concerned with the flow dynamics associated with missile/rocket propulsion, combustion stability and aerodynamic control of flight vehicles.

Biomedical Engineer: Concerned with the circulatory blood system, respiratory system, artificial hearts, blood substitutes, heart-lung machines, breathing aids, . . .

Chemical Engineer: Concerned with mass and energy transfer processes underlying industrial chemical processing.

Electrical Engineer: Concerned with hydroelectric power generators such as water/steam flow turbines to produce electricity.