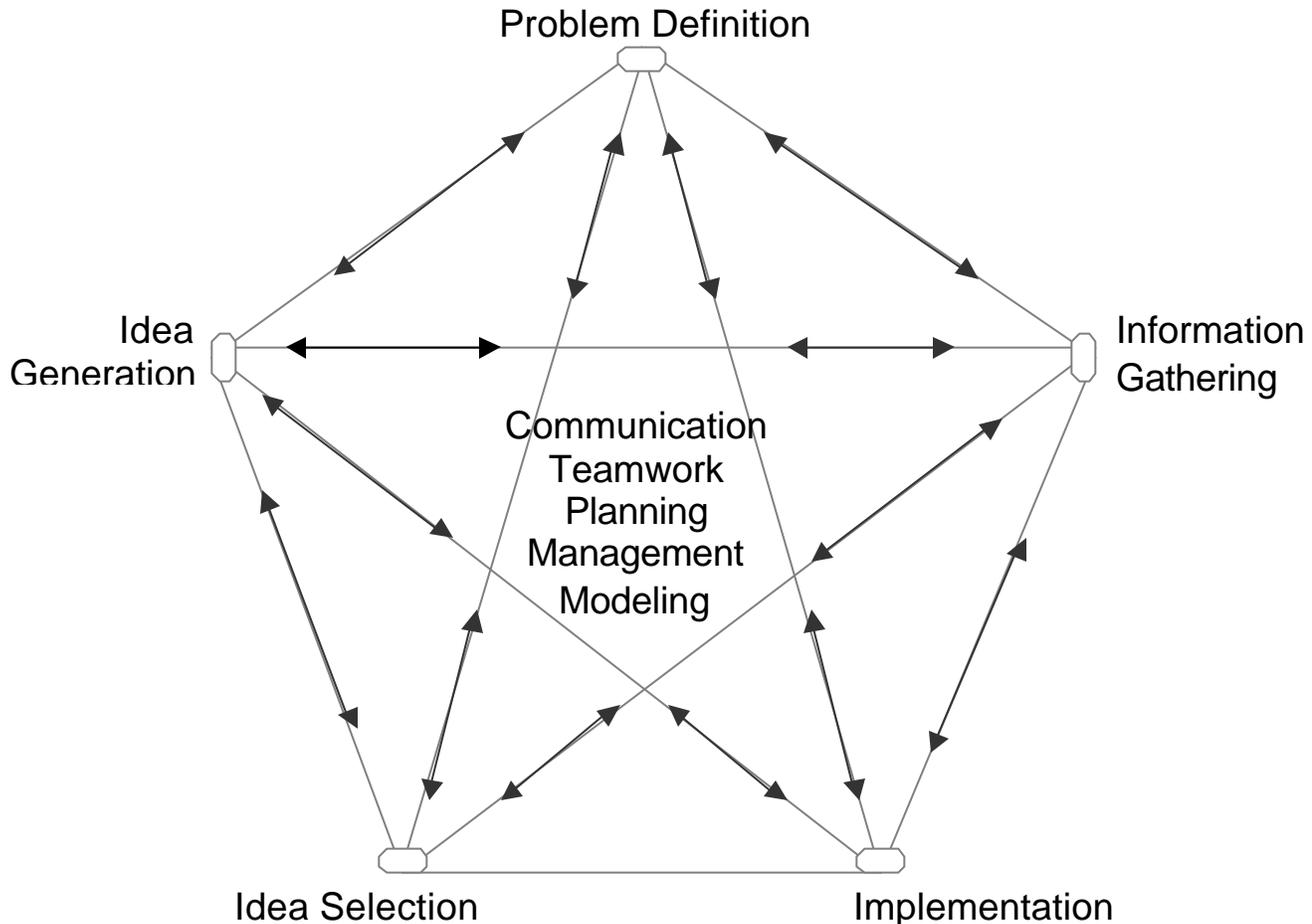


Engineering Design Process

ENGINEERING is the process of applying scientific and mathematical principles, experience, judgement, and common sense to DESIGN products or processes that benefit society. It is an ITERATIVE process composed of the following parts:



Major components of the design process:

Problem Definition	Identifying needs to be served by the design, determining design objectives and constraints.
Information Gathering	Researching design problem, engineering science, available technology, and previous solutions.
Idea Generation	Generating multiple creative design possibilities
Idea Selection	Evaluating design possibilities and deciding to go with one
Implementation	Building a prototype or building the final design

Central throughout the process:

Team Work	Working together to facilitate the process of design
Communication	Exchanging information about the design with others
Planning	Development of an initial design strategy.
Management	Guiding the process in response to changing or unanticipated conditions.
Modeling	Employing models, equations, or simulations to help make decisions