**Tutorial (5)**

**Course Instructor: Dr. Raja Rizwan Hussain**

**Subject Name: Introduction to Engineering Design**

**College of Engineering**

**King Saud University**

**Creativity- Generation of Design Concepts (**a kind of mental activity)

1. A public transport system must be designed. There are several alternatives:
   1. Power: electric, gasoline, diesel, gas turbine.
   2. Medium: underground, ground, overhead.
   3. Support: rail, tires.

Use morphological analysis [(problem-solving)](http://en.wikipedia.org/wiki/Morphological_analysis_(problem-solving)) technique, organize and discuss the design alternatives.

1. Develop several design concepts for a domestic door security device.
2. Develop a morphological analysis for a mosquito killer device.
3. A need is perceived (apparent) for a “device to remove dust from carpets at home”, generate several concepts and comment on them.
4. Setup the attribute list (criteria for successful design) for design of a Notebook (portable computer).