

King Saud University

College of Engineering

GE 105: **Introduction to Engineering Design**

Due: Thursday, April 7, 2016

Tutorial 4

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

1. A public transport system must be designed. There are several alternatives:
 - a. Power: electric, diesel, gas turbine.
 - b. Medium: underground, ground, overhead.
 - c. Support: rail, tires.Use morphological analysis ([problem-solving](#)) technique, organize and discuss the design alternatives.
2. The high temperature and the sunny days in Riyadh have increased the desirability to protect the car interior from the heat. Develop several design concepts to automatically cover the car.
3. Develop a morphological analysis for a mosquito killer device.
4. A need is perceived (apparent) for a “device to remove dust from carpets at home”, generate several concepts and comment on them
5. Develop several design concepts for a domestic door security device.