BIA 650 A Homework#10 W&A Chapter 16, Problem 25

# Management Overview

Problem Statement:

To find out which professor should be given a raise using the **Analytical Hierarchy Process** method

Data Sources:

* + The **inputs** are the pairwise comparisons of Teaching, Research and Service and the pairwise comparison of professors based on each of the above criterion.

Model Approach:

* + First, we find the normalized matrices for each of the comparison matrices
  + Then we find the weightage by calculating the mean row-wise
  + The Total score is found by matrix multiplication of each professor’s weightage on teaching, research, service and weightage of each objective.
  + For the comparison matrix, we find consistency index
  + Next we make sure the consistency index to random index ratio is less than 0.1 – to check consistency of comparison matrices

Solution and Interpretation:

* Professor 2 received a higher Total Score
* So, Professor 2 should be given a higher raise