# TOTAL QUALITY MANAGEMENT - II

**PROF. RAGHUNANDAN SENGUPTA**
Department of Industrial & Management Engineering IIT Kanpur

**TYPE OF COURSE** : Rerun | Elective | UG I PG
**COURSE DURATION** : 8 weeks (26-Jul' 21 - 17-Sep' 21)
**EXAM DATE** : 26 Sep 2021

**PRE-REQUISITES :** Probability & Statistics

**INTENDED AUDIENCE :** Masters in Business Administration, Masters in Economics, Masters in Statistics/Mathematics, Masters in Industrial Engineering, Masters in Operations Research Operations Management, Phd in related fields.

**INDUSTRIES APPLICABLE TO :** All service, manufacturing, industry, government department, any type of private industry

**COURSE OUTLINE :**

This is the second part of the two part course (TQM-I, TQM-II) and will cover topics ranging from Quality Engineering, Quality Function Development, Introduction to Design of Experiments, Process Optimization and Robust Product Design, Steps to Six Sigma, Management of Quality, its ultimate philosophy, etc.

**ABOUT INSTRUCTOR :**

Raghu Nandan Sengupta completed his bachelors in engineering in Mechanical Engineering from Birla Institute of Technology Mesra, Ranchi INDIA and his FPM (PhD) from Indian Institute of Management Calcutta, INDIA with specialization in Operations Management. His research interests are in Sequential Analysis, Statistical & Mathematical Reliability, Optimization and its use in Financial Optimization. His research work has been published in journals like Metrika, European Journal of Operational Research, Sequential Analysis, Computational Statistics & Data Analysis, Communications in Statistics: Simulation & Computation, Quantitative Finance, etc. At Indian Institute of Technology Kanpur, INDIA he is a Professor in the Industrial & Management Engineering department and teaches courses like Probability & Statistics, Stochastic Processes & their Applications, Management Decision Analysis, Financial Risk Management, etc.

**COURSE PLAN :**

**Week 1 :** Quality Engineering, Quality Function Deployment

**Week 2 :** Quality Function Deployment, Introduction to Design of Experiments

**Week 3 :** Introduction to Design of Experiments

**Week 4 :** Introduction to Design of Experiments

**Week 5 :** Introduction to Design of Experiments, Process Optimization and Robust Product Design

**Week 6 :** Process Optimization and Robust Product Design

**Week 7 :** Process Optimization and Robust Product Design, Steps to Six Sigma

**Week 8 :** Steps to Six Sigma, Management of Quality, its ultimate philosophy