

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E Semester: III

Instrumentation & Control Engineering (Applied Instrumentation)

Subject Name: **Quantitative Feedback Theory (Major Elective - IV)**

Sr. No.	Course Content
1.	Prerequisites: A First Course in Control System Design
2.	Details: Introduction to feedback properties. One and two degrees of freedom structures. Properties of loop transmission function. Formulation of closed-loop specifications in time and frequency domain. Basic procedure for single input-output linear-time-invariant systems: Some examples based on QFT, Design procedures for Multi input-output systems.

Reference Books:

1. I.M. Horowitz, Quantitative Feedback Theory (QFT), Volume 1, Colorado Press, Boulder, Colorado, 1993.
2. C. H. Houpis, S. I. Rasmussen, Quantitative Feedback Theory : fundamentals and applications, Marcel Dekker, 1999.
3. O. Yaniv, Quantitative Feedback Design of Linear and Nonlinear Control Systems, Kluwer Academic, Boston, 1999.