

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E

Communication Engineering

Subject Name: **Linear System Theory**

Sr.No	Course content
1	Review of matrices and linear vector space including semigroup, group, rings and fields.
2	State variable modelling of continuous and discrete time systems, Linearization of state equations, Solutions of state equations of linear time-invariant and time-varying systems.
3	Controllability and Observability of dynamical systems
4	Minimal realization of linear systems and canonical forms
5	Liapunov's stability theory for linear dynamical systems.

Reference Books:

1. Linear System Theory, C.T.Chen