

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E. Semester: III

Bio-Medical Engineering

Subject Name: **Functional Magnetic Resonance Imaging**

Subject Code: **733101**

Sr. No	Course content
1.	Introduction to Functional NeuroImaging
2.	Introduction to Functional Magnetic Resonance Imaging
3.	The Nature of Magnetic Resonance Signal
4.	Magnetic Resonance Imaging
5.	Perfusion Based Functional Magnetic Resonance Imaging
6.	Flow Based Functional Magnetic Resonance Imaging
7.	Susceptibility Contrast Based Functional Magnetic Resonance Imaging
8.	Clinical Applications of Functional Magnetic Resonance Imaging
9.	Data Processing and Practical Issues

Reference Books:

1. Introduction to functional magnetic resonance imaging: principles and techniques
- Richard B. Buxton
Cambridge University Press, 2002
2. Functional magnetic resonance imaging
-Scott A. Huettel, Allen W. Song, Gregory McCarthy
Sinauer Associates, 2009
3. Functional MRI
-Chrit T. W. Moonen, P. A. Bandettini
Springer, 2000