

GUJARAT TECHNOLOGICAL UNIVERSITY

M.E

Communication Engineering

Subject Name: **Embedded System Design**

Sr.No	Course content
1	Embedded Micro controller Cores, Embedded Memories, SRAM, DRAM Controllers.
2	Embedded System Design Aspects:
3	Interfacing between analog and digital sections, signal conditioning, Interfacing with external systems, User interfacing.
4	Software aspects of Embedded Systems:
5	Real time programming languages & operating systems for Embedded Systems, Embedded programming in C/C++, Scheduler, Multitasking, Threading concepts and implementation,
6	Serial Communication Interface: UART, SCI applications, Modern Serial Interface Standards, Modems, SPI, I2C, USB, Introduction to JTAG Port
7	Case study of Embedded Applications .

Reference Books:

1. J. W. Valvo, Embedded Micro computer system, Brooks/Cole.
2. K. J. Ayala, The 8051 Microcontroller, Pernam Intl.
3. Jack Ganssle. The art of designing Embedded Systems.
4. sDaniel W. Lewis, Fundamentals of Embedded Software