**13EE32E2-EMBEDDED SYSTEMS**

**(EEE)**

**Credits:4**

**Instruction/week: 4 hrs. Max. sessional marks: 40**

**Univ. Exam: 3 hrs. Univ. Exam marks: 60**

**UNIT-I**

Introduction of embedded systems, their characteristics, modeling of systems, system specification languages, study of specification example.

**UNIT-II**

Specification translation, translation of various features such as state transition, message passing communication, concurrency, exception handling etc.

**UNIT-III**

System partitioning- Introduction, partitioning issues, partitioning algorithms, functional portioning, hardware/software partitioning algorithms, functioning for systems.

**UNIT-IV**

Design quality estimation- Quality metrics, hardware estimation, software estimation.

**UNIT-V**

Specification refinement- Refining variable grouping, channel refinement, resolving access conflict, refining incompatible interfaces, Refining hardware/software interfaces. Study of a system design methodology and study of generic synthesis system.

**TEXT BOOKS:**

1. Specifiction and design of embedded systems, David D Gajski, Frandk vahid, S. Narayan, J Garg.

**REFERENCES:**

1. Embedded system design, Heath Steve and Newns 1997
2. Art of programming embedded Systems, J. Gassle