**Fifth Semester Computer and Engineering**

**CSL 331: System Software and Microprocessor Lab**

List of Experiments

**SYSTEM SOFTWARE LAB:**

1. **Experiments from operating system**
2. Simulate the following file allocation strategies.
3. Sequential b) Indexed c) Linked
4. Simulate the following file organization techniques
5. Single level directory b) Two level directory c) Hierarchical
6. **Experiments from assemblers, loaders and macroprocessor**

1. Implement pass one of a two pass assembler.

2. Implement pass two of a two pass assembler.

3. Implement a single pass assembler.

4. Implement a two pass macro processor

5. Implement a single pass macro processor.

6. Implement an absolute loader.

7. Implement a relocating loader

**MICROPROCESSORS LAB :**

**I. Assembly Language Programming Exercises/Experiments using 8086 Trainer kit**

1. Implementation of simple decimal arithmetic and bit manipulation operations.

2. Implementation of searching and sorting of 16-bit numbers.

**II. Experiments using MASM (PC Required)**

3. Implementation of decimal arithmetic (16 and 32 bit) operations.

4. Implementation of String manipulations.

**III. Interfacing Experiments with 8086 trainer kit through Assembly Language Programming**

5. Interfacing with stepper motor - Rotate through any given sequence.

6. Interfacing with Digital-to-Analog Converter.

**IV. Experiments using 8051 trainer kit**

7. Familiarization of 8051 trainer kit by executing simple Assembly Language programs such as decimal arithmetic and bit manipulation.

8. Implementation of Timer programming (in mode1).