HEAT EXCHANGER NETWORK DESIGN LAB

(Skill Based Lab Elective-I)

Course Code: 15CH11S4 **1 Credit**

Course Outcomes :

At the end of the Course, the Student will be able to:

CO 1 Understand the importance of heat energy conservation

CO 2 Calculation of the minimum hot and cold utilities analytically and using software

CO 3 Calculation of utilities for process having multiple hot and cold streams

CO 4 Understand the importance of stream splitting in HEN

CO 5 Given a process flow sheet at steady state, understand how to obtain the hot and cold streams

LIST OF EXPERIMENTS/PROGRAMMES:

1) Calculation of minimum hot and cold utilities and pinch temperatures for a two hot and cold streams analytically.

2) Calculation of the minimum hot and cold utilities and pinch temperature for 2 hot and 2 cold streams.

3) Handling multiple hot and cold streams, interpret the composite and grand composite curves.

4) HEN design for stream splitting and the necessity for stream splitting.

5) HEN design for a process flow sheet by retrieval of process data of each stream.