IWUNZE FAVOUR

15/SCI09/002

CHEMICAL ENGINEERING

**CHE 512**

**ASSIGNMENT**

1. In HAZOP Technique, a multidisciplinary team of external and internal experts uses a systematic approach (based on “guide words”) to identify possible hazards resulting from deviations from the process design associated with the operation and modification of the plant or installation. The HAZOP team evaluates the causes and consequences of each deviation, the existing safeguards as well as the preventive measures to develop corrective actions. The HAZOP procedure is applicable to all types of specific operational sequences and can be used for planned and existing systems. It is most effective when conducted during the conceptual design phase where recommendations affecting the general design may be made.
2. HAZOP studies offer a systematic method to improve plant safety by considering technical and organizational hazards, potential human error and external influences. In addition to determining which safety measures provide genuine benefits, HAZOP studies can also help identify the best solutions for functional safety assets of process control. The results can be used to reduce the likelihood of costly and time-consuming malfunctions while increasing operational safety and availability. HAZOPs are able to cover existing standards as well as new complex technologies that can consequently improve the insurance terms of a plant.

