

SYLLABUS :-

Concept of risk, objective and scope of risk assessment, probabilistic risk, risk perception and acceptability, Quantitative aspects of risk. Three levels of risk quantification, PRA management, preliminary hazard analysis, HAZOP and HAZAN, FMEA and FMECA analysis, Fault tree Analysis. Digraph and other approaches. Computation of Hazard probability, unavailability and other parameters using fault tree methodology. Monte Carlo Simulation technique, Event tree analysis, identification of initiating events, sequence and scenario development, system analysis, external events and dependent failures and quantification, Accident-consequence Analysis, uncertainty analysis, sensitivity analysis and importance measures, Bayesian approaches. Human reliability Analysis