CE687A: Traffic Safety

Course Contents:

Introduction; Traffic Safety related issues; 4 Es of traffic safety; Areas of influence for engineers and planners; Vehicle and Human Characteristics; Vehicle related characteristics; human factors; Non-motorist road users; Engineering Components; Road design standards; pavement properties; Signs and signal design; traffic calming; Traffic Safety Audits: introduction; description; significance; Institutional framework; Case studies; Field visit; Data and its significance: crash data, traffic data, planning data, design data; Crash analysis: temporal and spatial distributions; Problem identification and selection of countermeasures: engineering, enforcement and educational treatments; Feasibility; Evaluation of safety improvement projects: mathematical and statistical techniques; Case studies; Traffic safety in planning stage: safety conscious planning, incorporation of traffic safety in planning process, pedestrians and bicyclists' safety and transportation planning; Application of advanced technologies in traffic safety; Decision support system in analyzing data.