

CE 890 Graduate Seminar

SPEAKER: Ranjit Prasad Godavarthy (Advisor: Dr. Eugene R. Russell, Professor Emeritus)

TOPIC: “To Develop a Manual for High-Risk Rural Roads (HRRR)”

DATE: December 9, 2009

TIME: 4:00 p.m. (refreshments at 3:45 p.m.)

PLACE: 2144 Fiedler Hall

ABSTRACT

There are in excess of 43,000 motorists killed on US roads and streets and approximately 60% occur on rural roads. In an attempt to address and reduce these fatalities, the current transportation act, SAFETY- LU, elevated the Highway Safety Improvement Program (HSIP) to a core program and included a \$90,000,000 High-Risk Rural Roads (HRRR) program to address and significantly reduce traffic fatalities and incapacitating injuries on rural major or minor collectors, and/or rural local roads. In order to qualify for HSIP/HRRR funds, rural roadways must have a certain crash rate for fatalities and incapacitating injuries that exceeds the statewide average for that functional class of roadways. Although KDOT provides excellent assistance, and has good data available, many counties and small towns have neither the personnel, resources or expertise to take full advantage of the HRRR program. Guidelines are needed in the form of an HRRR Manual or Handbook for local officials and personnel responsible for local, rural road safety to clarify the program, define their role, educate them regarding data needs and availability and proper use of data to identify their HRRR and lead them through a process of identifying cost-effective, mitigating strategies and available tools for implementation of an HRRR safety program. The main objective would be to work closely with the KDOT Bureau of Local Projects to develop a guide Manual or Handbook that would provide guidelines and methods for local government officials and/or personnel to make the best use of HRRR funds and other safety funds, to reduce fatalities and incapacitating injury on rural, local roads.

Kansas Accident Reporting System (KARS) data set is used to analyze the significant crash types on HRRR eligible roads. Benefit Cost ratio technique was used to select the best countermeasure among different countermeasures for each crash type selected.