

CE 890 Graduate Seminar

SPEAKER: Vahid Rahmani, M.S. graduate student
(Advisor: Dr. Steve Starrett)

TOPIC: “Water Quality Modeling of Minab River Using QUAL2Kw Model”

DATE: April 13, 2011

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

PLACE: 2144 Fiedler Hall

ABSTRACT

Rivers are very important for development of a region because they have the largest portion of fresh water. Regarding to lack of fresh water, water quality of rivers should be controlled. Minab river supplies fresh water for two big cities and also for agriculture and industry, so in this study this river has been discussed. The Minab dam was built on this river which made it more important. The water regime of this river is rainy. The pollution from rural centers, urban centers, agricultural sources, and industrial sources was estimated by completing a comprehensive plan including sampling and field inspections on the whole basin in different seasons. This information was put into the QUAL2Kw model to simulate the water quality conditions throughout the river. The highest Water Quality Index (WQI) value for July, May, and March was 71.7, 69.2, and 66.8, respectively which shows that the river is moderately polluted. It means that less variety of microorganisms can live in this water and the algae growth is larger. Also the amount of DO is more than 2 mg/L and BOD is less than 50 mg/L showing that the water is suitable for agricultural usage, but because there are pathogens present in the water it is not good for drinking.