



WATER SUPPLY SYSTEM (RESOURCE, USAGE, RISK, RISK MANAGEMENT)

Course Description

Water resources management around the world has been based on improving the quality and quantity of water, while paying attention to maintaining healthy ecosystems, and securing water during drought. These challenges have been particularly intensified in urban areas due to rapid water resources deterioration around the world, caused by a combined effect of global warming, climate changes, population growth, and fast development. While these factors are becoming more and more obvious, new challenges emerge, prompted by studies that focus on the (improvement of) management of this endangered resource both in terms of quality and quantity. Therefore, the purpose of this course is to provide help to the water utilities sector, thereby leading to a better water management, and securing the long-term financial sustainability of this sector.

Course Content

- Managing the process of water pipeline network rehabilitation
- Elements of fuzzy set theory, fuzzy logic and the concept of fuzzy decision-making theory
- Application of fuzzy reasoning in assessing condition of water pipe network, cost efficiency measures and risk of pipe deterioration consequences
- Model of managing of a process of water supply network repairing by using fuzzy logic and fuzzy inference

Pre-requisites

- Knowledge of water supply system

Target group

- The management of water utility companies, as well as to planners for the water sector, or for any other sector related to water use, sustainable ecological management, or ecosystem and water preservation.

Learning objectives

- Understanding some of the advanced techniques aspects of management, which present the basis for economically sustainable and reliable functioning of the water supply system.
- Introducing the concept of water utility management is the way for future educated professionals, who can contribute to a sustainable and more successful water utility management, both in local water utilities, as well as water resources management at large.



Teacher

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