

Title : Hybrid systems for electrical generation with energy storage

ERANETMED Edgewise Project

Today, both urban and rural environments will manage water and energy as an integrated system. This situation directly leads us to the smart cities' concepts, where the city is ruled as an integrated environment where all systems inside it should cooperate to achieve an optimal point of operation.

In the era of micro-grids and renewable energies, the local management of these energies is a challenge. Although the environmental impact is well established, the problems posed by the introduction of renewable energies must be addressed.

Add to this the problem of the intermittency of these energies; the storage of energy becomes imperative. This one can be electrochemical, inertial or hydric.

In this lecture, we will present some technological solutions as well as control methods based on innovative command laws.