UNIVERSIDAD DE GRANADA

Seminario ***"Optimal filtering algorithm based on covariance information using a sequential fusion approach"*** impartido por la Profesora **Raquel Caballero Águila**

Raquel Caballero Águila es actualmente Profesora Titular de Universidad en el Departamento de Estadística e Investigación Operativa de la Universidad de Jaén. La profesora R. Caballero Águila visitará la Universidad de Granada en calidad de profesor visitante en el Máster en Estadística Aplicada.

La profesora Caballero Águila ha desarrollado su intervención en el Máster desde el curso **Sistemas Estocásticos. Estimación de Señales** a través del seminario titulado *"Optimal filtering algorithm based on covariance information using a sequential fusion approach".*

Lugar y fecha de realización: Seminario *Ramón Gutiérrez Jáimez* del Departamento de Estadística e I.O, el **19 de septiembre de 2019 a las 17:30h.**

Abstract: The least-squares linear filtering problem is addressed for discrete-time stochastic signals, whose evolution model is unknown and only the mean and covariance functions of the processes involved in the sensor measurement equations are available instead. The sensor measured outputs are perturbed by additive noise and different uncertainties, which are modelled in a unified way by random parameter matrices. Assuming that, at each sampling time, the noises from the different sensors are cross-correlated with each other, the sequential fusion architecture is adopted and the innovation technique is used to derive an easily implementable recursive filtering algorithm. A simulation example is included to verify the effectiveness of the proposed sequential fusion filter and analyze the influence of the sensor disturbances on the filter performance.