Seminario ***"Centralized fusion estimation in sensor networks with random measurement matrices, noise correlation and multiple transmission failures"*** 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 *"Centralized fusion estimation in sensor networks with random measurement matrices, noise correlation and multiple transmission failures"*.

Lugar y fecha de realización: Seminario *Ramón Gutiérrez Jáimez* del Departamento de Estadística e I.O, el **3 de julio de 2018 a las 10:30h**

Abstract: The least-squares linear centralized estimation problem is addressed for discrete-time signals from measured outputs whose disturbances are modeled by random parameter matrices and correlated noises. These measurements, coming from different sensors, are sent to a processing center to obtain the estimators and, due to random transmission failures, some of the data packet processed for the estimation may either contain only noise (uncertain observations), be delayed (sensor delays) or even be definitely lost (packet dropouts). Different sequences of Bernoulli random variables with known probabilities are employed to describe the multiple random transmission uncertainties of the different sensors. Using the last observation that successfully arrived when a packet is lost, the optimal linear centralized fusion estimators, including filter, multi-step predictors and fixed-point smoothers, are obtained via an innovation approach; this approach is a general and useful tool to find easily implementable recursive algorithms for the optimal linear estimators under the least-squares optimality criterion. The proposed algorithms are obtained without requiring the evolution model of the signal process, but using only the first and second-order moments of the processes involved in the measurement model.