	Altay Brusan:

Research Interest:	- Machine Learning & Intelligent Systems
	- Robotics & Control
	- Statistical signal processing
	- Information theory
	- Wavelet Transform

Thesis Title:	**Fault detection in TE chemical process based on quantum signal processing and wavelets**

Abstract:

Fault in a system may cause serious damages. Due to importance of the topic many researchers with different backgrounds aimed to propose new ideas into the realm. In this way, this study is onto get to some novel ideas for fault detection stem in Quantum Signal Processing (QSP) and wavelets. With regarding fault detection as a signal processing problem, a new way for sensor selection has been proposed. In addition, a new view over the classifiers also proposed which is called frame based classifiers. All thesis novel structures have been applied on one of the most challenging chemical benchmarks, i.e. Tennessee Eastman. The results indicate a good achievement for novelties.

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