	Elham Ghahremanloo
Research Interest:	-Control Engineering
	-Bio Engineering
	-Neuro Science
	-Image Processing
	-System Identification

Thesis Title: Anti-Control Analysis for On-time Fault Detection of a Flexible Joint System

-Fault Detection

Abstract:

In any control system, existence of controller for achieving to desired characteristics of a closed loop system is essential but it is also the factor which prevents on-time fault detection. Flexible joint is a under actuator system and controlling two outputs-displacement and deflections of joint-with one input is challengeable. One of choices for decreasing joint deflections is synchronization with a chaotic signal. Therefor the controller is designed base on zero synchronization and tracking errors. In this way, the controller helps us for on-time fault detection. We can use changing of lyapunov exponential or changing of bifurcation after occurring a fault in the system for fault detection.

Supervisor:	Dr.Mahdi Aliyari
	Dr.Faezeh Farivar
Contact:	Elham.ghahremanloo85@gmail.com