**Mohammad shafiee alavijeh:**

**Research Interest:**

- system Identification
- industrial control
- mechatronic systems
- mechanical analysis

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| **Thesis Title:** | Design, Simulation and Control of an Electromechanical actuator that used under certain conditions |


**Abstract:**

Actuators which perform the controller commands in a control loop have factors and features based on their special uses . One type of actuators that is used in a variety of industries is the "electromechanical actuator". The unique features of this type of actuator, such as the low energy needed for initial start, high flexibility when choosing the elements, the low cost in comparison to other actuators with similar functions, proper functioning, high adjustment across different applications, and the ease of checking and mending as compared to other actuators have proved it as the first priority of designer engineers from many industries.

This project deals with designing a special actuator type which is used under certain conditions of temperature, dimension and force.

Actuators are devices with the duty of executing control commands in a Control loop. These devices have specific characteristics based on their application. One of these actuators widely used in several industries is electromechanical actuators. To name a few of those specifications are: Low power needed for Initial start, Parts selection flexibility, low price comparing to other devices with same performance, Reliability, Ease of maintenance. These characteristics has resulted in precedency of electromechanical actuators use for Design Engineers

This project deals with designing a special actuator type which is used under certain conditions of temperature, dimension and force.


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