

## عنوان مقاله:

Developing the force measurement device for cable robot and study of its Application

## محل انتشار:

دوازدهمین کنفرانس ملی مهندسی ساخت و تولید ایران (سال: 1390)

تعداد صفحات اصل مقاله: 6

## نویسندگان:

A. Tajik - M.Sc. Student, Department of mechanical Engineering, Science and Research Branch, Islamic Azad University, Tehran, Iran

M.H. Korayem - Professor of Mechanical Engineering department of Iran University of Science and Technology, Tehran, Iran

## خلاصه مقاله:

Sensors play a significance rule in robotic groundwork. In order to measure the value of applied force, load cells are used as force sensor. In this paper, the modified cable tension measuring mechanism is described; furthermore, the constructed boards which amplify load cell output are introduced. In addition, the benefits of a new approach to transfer data from load cell to PC for a six Degree Of Freedom (DOF) cable robot called IcasBot as well as the value of cable vibrations in several paths are investigated. The mechanism, the designed board and the sensors' output is validated with design of several paths for robot and comparison of obtained data with simulation results. To compare with the set point and available theory in the designed computer program, the information related to both actual cables' tension and actual motors' torque is obtained.

## کلمات کلیدی:

Force sensor; Load cell; Cable robot; Parallel robot

## لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/212731>

