

Piezoelectric-ferroelectric stack actuator and shape control algorithm (Technion)

code: MAE-0995

Piezoelectric stack actuators are a common choice for micro- and nano-positioning systems. However, they are limited in terms of travel range (stroke). Our advanced piezoelectric-ferroelectric actuator has a travel range-to-length ratio up to six times greater than traditional piezoelectric stack actuators. Furthermore, the active layers in the advanced stack are controlled separately or in groups and are assigned with either a de-poled or a fully polarized domain state. This feature minimizes vibrations, allows for a controllable and extended travel range, and ensures that the nano-scale positioning accuracy is maintained. Applications vary from microscopy to fuel injectors or from digital cameras to structural systems.

Contact for more information:

Gabriel Shemer , +972-77-8871780

T - Technion Technology Transfer
Technion City, Senate Bldg., Haifa 32000, Israel
Tel. 972-4-829-4851; 972-8325-375
Fax. 972-4-832-0845