

Progressive Wave in Ultrasonic Engines

Alexandru Năstase, Florin Onea, Resul Teke
Galati University Dunarea de Jos, Romania
Ercyies University of Kayseri, Turkey

ABSTRACT

This paper assess the generation of progressive waves by composing stationary waves, both longitudinal and transverse. This types of waves are analyzed by using a specific MATLAB wave toolbox. Also a presentation of the progressive waves generating technique in ultrasonic rotary engines is made.

Keywords: *progressive waves, ultrasonic engines, MATLAB.*

References

Bar-Cohen et al., 1998: *Rotary Ultrasonic Motors Actuated by Traveling Flexural Waves*, Proceedings of the Smart Structures and Materials Symposium, San Diego CA.

Ben-Yaakov et al: *A Resonant Driver for a Piezoelectric Motor with Single Transistor Direction Switches*. Ben-Gurion University of the Negev, Beer-Sheva, ISRAEL

Betnum M., 1998: *Design and Construction of Piezoelectric Motor*. University of Meryland.

Chee, Kian Lim et al., 1999: *A Piezo-on-Slider Type Linear Ultrasonic Motor for the Application of Positioning Stages*. Proceedings of the IEEE/ASME International Conference on Advanced Intelligent Mechatronics, Atlanta USA.