

A NEW ELECTROMECHANICAL VIBRO-IMPACT MECHANISM

Nguyễn Văn Dự, La Ngọc Tuấn, Nguyễn Đăng Hòa, Lê Xuân Hưng

TÓM TẮT:

A new working prototype of electro-vibroimpact mechanism has been design, manufactured and test in a laboratory. Compared to an earlier version invented by Nguyen and Woo, this new design elicits a large amplitude of vibratory response by decoupling an electromagnetic forcing mechanism from impact inertia. As a result, large amplitude oscillations of impacting hammer of considerable mass arise from resonance in an impact oscillator. This novel geometrical arrangement allows for future optimisation in terms of system parametric selection and adaptive control.