

# OPTIMIZATION OF A SOLENOID-ACTUATED VIBRO-IMPACT MECHANISM FOR GROUND MOLING MACHINES

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## TÓM TẮT:

In this paper a new design of a vibro-impact mechanism based on a solenoidactuated vibrator is presented. Here the ideas previously proposed in [11] have been developed by adding to the series RLC circuit a solid state relay which switches the power supply on and off in accordance to a train of square waves produced by a function generator. This new control of the suppliedharmonic voltage allows significant increase in the magnitude of impact forces and the progression rates. This implies that the deployment of such a machine in actual soil conditions is very promising.