

# ANALISIS MODEL VIBRASI PADA ELASTIC BEAM YANG DIBANGKITKAN OLEH EXTERNAL FORCE

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## ABSTRACT

In this paper, the vibration of elastic beam that is exposed to external force is examined. The external force exposed MEMS/NEMS and some little portion of the force transferred to its main component, the beam. The explicit solution of unperturbed model is carried out by separation variable. To find the perturbed solution, the formal expansion of the unperturbed solution is used. The results show that the unperturbed solution has a simple form of sinus-cosines function and the perturbed solution has an order differ from the unperturbed solution for a long time.

Kata Kunci: *elactic beam, external force*