

**Abstract ID-079**

## **INVESTIGATION ON LAMINTED MAGNETOELECTRIC COMPOSITE STRUCTURE MATERIAL**

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**Keywords:** Terfenol-D, Smart Materials, Magnetostriction, Hybrid Materials, Pzt

**Summary:** In this paper, a novel magnetoelectric laminated composite system consisting of a one layer of longitudinally polarized piezoelectric material sandwiched between two layers of transversally magnetized Terfenol-D magnetostrictive composite was presented. TerfenolD composites were fabricated by embedding and aligning Terfenol-D particles with a size distribution of 5-300  $\mu\text{m}$  in a Epolam 2015 epoxy matrix with volume fraction 0.7. Their quasistatic and dynamic magnetic and magnetomechanical properties were measured as functions of magnetic field. The PZT material was a commercially available material which was supplied by Smart Material company. The P1 type of micro fiber composite (MFC) was chosen. Behavior of this hybrid material in a variety of external magnetic field directions was investigated. Based on the obtained results, it was found that the prepared composite material exhibits magneto-electric effect in the case of work in a variable magnetic field.