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(57) Abstract :

ABSTRACT A SMART MATERIAL FABRICATION METHOD FOR HANDLING DEFLECTION SUPPRESSION OF PLATES
The present invention provides a smart material fabrication method for handling deflection suppression of plates, comprising a step of considering one or more quadrilateral shaped plates (1), arranging/fabricating one or more smart material patch(s) on the plates according to a line type arrangement and in cross-type arrangement, bonding a layer of piezoelectric material on one of the side of the plates (1), wherein, the arranging/fabricating one or more smart material patch(s) (2) on the plates (1) helps to reduce deflection for both the arrangement and, an effective frequency band for maximum suppression of deflection is shifted from lower frequency band to higher frequency band and the method helps in optimal placements of the patch for maximizing the vibration control and based on the control strategy for a plurality of sensors and actuators placement. Ref Figure 1

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