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## Vibration Based Damage Identification in a Composite T-Beam Utilising Low Cost Integrated Actuators and Sensors

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The development of integrated measurement systems for composite structures is urged by the fact that a Structural Health Monitoring environment requires these systems to become an integral part of the structure. The feasibility of using low cost piezoelectric diaphragms for dynamic characterisation and vibration based damage identification in a composite T-beam structure is demonstrated. The dynamic behaviour is analysed by applying these basic electronic sound components for actuation and sensing. Impact induced damage at the skin-stiffener connection is detected and localized by applying the MSE-DI algorithm on the measured bending strain mode shapes.

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**Ключевые слова:**

### Содержание

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Damage features for damage identification  
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Acknowledgements