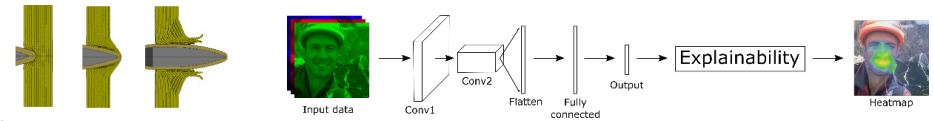


# Structural integrity under extreme load



Topic: In-depth investigations on composite materials

## •TITLE: Application of machine learning in prediction of low-velocity impact response of hybrid composites

### •RESEARCH BACKGROUND:

• The combined use of two or more reinforcing fibres in a single matrix, i.e., hybridization, has been considered a practical way of improving composite performance. What is the effect of different matrix? Is there a method to predict the impact response of the hybrid composites using AI?

### •RESEARCH ACTIVITIES:

1. Understanding the machine learning approaches and their application in prediction of mechanical response of structures.
2. Working on the training data for the model using the experimental and numerical methods.
1. Verification and validation of the new model.

### •METHODOLOGY: Experimental-Programming-Numerical

•DURATION: 9 months

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