



Experimental Mechanics Group



Prof. Ramji Manoharan
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Research area:

- Experimental solid mechanics
- Material characterization
- Fracture mechanics and fatigue
- Damage mechanics in composites

Mechanical testing

Welded joint

Strain contours

Material characterization

Multi-axial

Strain

Repair mechanics in composites

Damage identification in CFRP



Prof. Gangadharan Raju
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Research area:

- Non-destructive testing
- Structural health monitoring
- Buckling and post-buckling study
- Composite structures

Buckling of shells

Deformed shape

Impact test on CFRP

Fiber stitching machine

Metamaterials

Strain contours

Air coupled ultrasonic

C scan image



Dr. Syed Nizamuddin Khaderi
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Research area:

- Impact mechanics
- Dynamic material characterization
- Optical interferometry
- Foams and Lattice materials

Split-Hopkinson bar

Mini SHPB setup

Triaxial cell

Dynamic pressure loading



Prof. Ashok Kumar Pandey
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Research area:

- Linear and nonlinear vibration
- MEMS-based sensors and actuators
- NEMS
- Vehicle dynamics

Vibration Isolator Characterization

Bolted Joint Characterization

Vibration Characterization of Micro beams



Dr. Thulsiram G
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Research area:

- Non-destructive evaluation
- Material characterization
- Ultrasonic imaging
- Applied machine learning

Phased array with AI

Automatic Scanning with Robot

GFRP Imaging:

AI prediction for welding defects

AI prediction for casting defects

Our industry collaborators

