

Amrita Vishwa Vidyapeetham,
Amritapuri

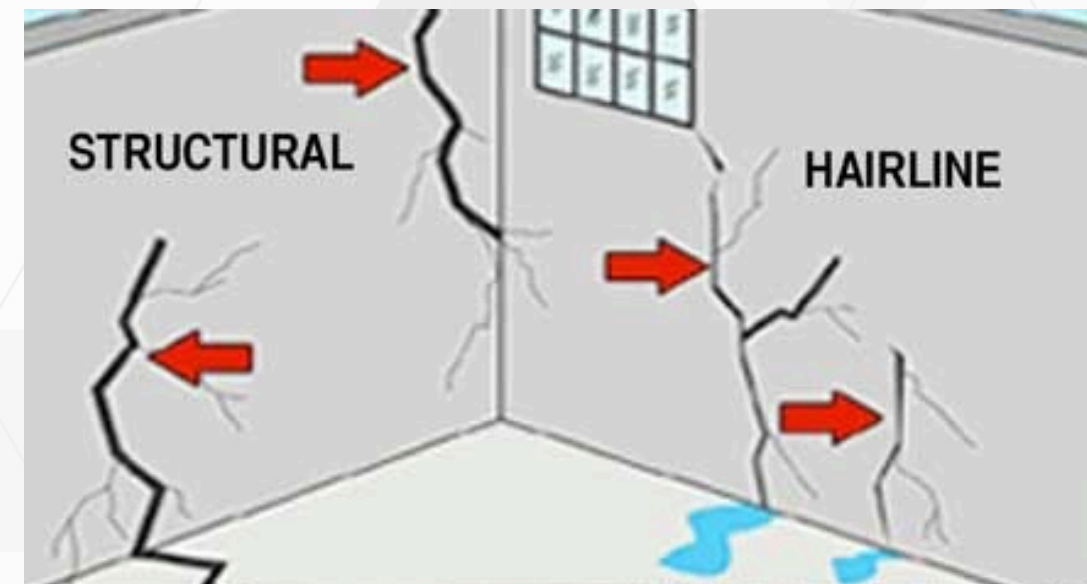
CRACK DETECTING ROLLER

**INTRODUCTION: AIM TO DESIGN A PRODUCT TO DETECT INTERIOR
CRACKS WITHIN WALLS**

ABHIJITH R PILLAI
AM.EN.U4MEE23002

AIM

TO DESIGN AN INNOVATIVE ROLLER-BASED DEVICE CAPABLE OF DETECTING INNER WALL CRACKS EFFICIENTLY AND RELIABLY USING ULTRASONIC TECHNOLOGY TO IMPROVE STRUCTURAL SAFETY IN INDUSTRIES LIKE CONSTRUCTION, MANUFACTURING, AND CIVIL ENGINEERING.



Scope

MANY CRACKS, INCLUDING MICRO-CRACKS AND SUBSURFACE ONES, ARE OFTEN INVISIBLE TO THE NAKED EYE, MAKING IT DIFFICULT FOR TRADITIONAL METHODS TO DETERMINE THEIR SEVERITY, LEADING TO UNNOTICED PROPAGATION, HIGHER COSTS, AND POTENTIAL SAFETY RISKS.

Objectives

- **TO ADDRESS THE INTERIOR DAMAGE PROMPTLY TO PREVENT SIGNIFICANT STRUCTURAL COMPLICATIONS.**
- **TO ENHANCE THE EFFICIENCY AND PRODUCTIVITY OF CONSTRUCTION WORK.**

DESIGN BRIEF

A PORTABLE, RELIABLE, AND EFFICIENT MACHINE FOR DETECTING INTERIOR CRACKS IN WALLS AND STRUCTURES USING ULTRASONIC TECHNOLOGY.

THANK YOU