**EXPERIMENTAL INVESTIGATIOIN ON STRUCTURAL CHARACTERISTICS OF STONY MASONRY**

**Dr.GANESH MOGAVEER**

**1  VIDYASHREE M 2  C K HARSHITHA 3 NIVEDITHA S P 4**

*1 Professor and Head, Dept. of Civil Engineering, Mangalore Institute of Technology and Engineering Moodabidri-574225, India*

*2 Research scholar, Dept. of Civil Engineering, Mangalore Institute of Technology and Engineering Moodabidri-574225,India*

*3**Student, Dept. of Civil Engineering, Mangalore Institute of Technology and Engineering Moodabidri-574225, India*

*4 Student, Dept. of Civil Engineering, Mangalore Institute of Technology and Engineering Moodabidri-574225, India*

***Email:*** [*hodciv@mite.ac****.in***](mailto:hodciv@mite.ac.in)

## Abstract:

Stone masonry construction is known since ancient times and has been used for the construction of bridges, dams, forts, palaces and temples in several parts of the world. Stones are now widely used for the construction of walls, foundations, arches and domes in buildings depending on local availability. Recently stone masonry arches have been used in the foundation of walls as an alternative to the conventional spread footings. The Krishna Raja Sagar dam in Karnataka and Pyramids of Egypt are good examples of stone masonry construction. Even though the stone masonry construction is extensively used in construction, information available on their behaviour is limited. Hence an attempt has been made in the present investigation to know the compressive strength and shear bond strength of stone masonry. For clear understanding of behaviour of stone masonry under various loading conditions the strength of masonry are essential. The structural performance of masonry is indeed greatly influenced by the bonding between masonry unit and mortar. The failure of masonry in compression is often accompanied by the loss of bond between masonry units and mortar. Since the masonry unit mortar interface is under shearing stress the failure in shear bond is likely to occur at the interface. Hence the strength of masonry unit stone mortar joints under shear has been examined.

***Keywords:*** *Shear bond strength, Prism strength, mortar, joints*