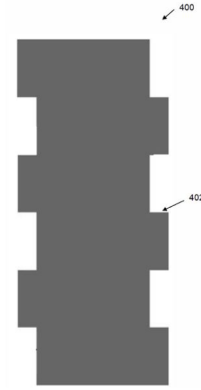




GRANTED

(IN518103)

## System and method of reinforcement of masonry structures with DFRCC sheets



### NEED

Masonry columns often face structural weakness at non-chamfered edges, leading to cracks and potential collapse. Traditional reinforcement methods may not address these vulnerable spots effectively, demanding an innovative solution for enhanced durability.

### TECHNOLOGY OVERVIEW

The patented reinforcement system strengthens masonry columns using ductile fiber-reinforced cementitious composite (DFRCC) sheets. The interlocking grooves on the sheets reinforce non-chamfered edges, increasing the column's structural integrity. This method provides an adaptable solution for various masonry column configurations.

### TECHNOLOGY KEY FEATURES

The system uses interlocking DFRCC sheets to reinforce non-chamfered edges. Grooves enhance adhesion and structural strength. The method includes custom thickness for required strength and efficient bonding.

[Read more here](#)

### MARKET ANALYSIS

The global construction market is expected to grow at a CAGR of 4.6%, reaching \$15.9T by 2033 (source: GlobalData). The increasing need for resilient structures in earthquake-prone regions drives demand for reinforcement technologies.

### Target Industries

1) Construction and infrastructure firms, 2) Civil engineering and architectural design firms, 3) Suppliers of building materials and reinforcement technologies.

### AT A GLANCE

- SDG 9 (Industry, Innovation, and Infrastructure), SDG 11 (Sustainable Cities and Communities)

Technology is available for licensing/ co-development.

Reach out to Prof. Deepak Chitkara, Coordinator, BITS Technology Enabling Centre,  
BITS Pilani Contact Details: [tec.bits@pilani.bits-pilani.ac.in](mailto:tec.bits@pilani.bits-pilani.ac.in), 91 1596-255913

