



Pradnya Niketan Education Society Pune's
**NAGESH KARAJAGI ORCHID COLLEGE OF
ENGINEERING & TECHNOLOGY, SOLAPUR**
An Autonomous Institute

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(With CGPA 3.32)

Information of Design Registration (Design Patent)

Title: AN APPARATUS WITH NOVEL DIE FOR COMPOSITE MATERIAL CASTING

Innovators:

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2. Ravindra Tatyasaheb Vyavahare
3. Nitinchand Ramkrishna Patil

Summary:

Polymer Matrix Composites (PMCs) are versatile materials extensively utilized in high-performance sectors due to their exceptional mechanical, thermal, and environmental properties. To ensure these composites meet the stringent demands of various applications, ASTM standards offer globally recognized methods for evaluating their performance characteristics. In this, a specialized setup was developed to manufacture PMC samples with consistent properties. The setup enables the simultaneous production of six samples, all of which are cured under identical temperature conditions. This uniform curing process ensures that the mechanical and thermal properties of all samples remain consistent, facilitating reliable testing and evaluation.

Drawing (Front View):



