

**BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE,
PILANI**

CERTIFICATE

This is to certify that the thesis entitled **Design and Evaluation of Novel Delivery Systems of Tapentadol for Enhanced Brain Delivery** and submitted by **Jaya Abraham** (ID No. 2011PHXF0425P) for the award of Ph.D. of the Institute embodies original work done by her, under my supervision.

Signature of the Supervisor

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