

**BIRLA INSTITUTE OF TECHNOLOGY AND SCIENCE
PILANI (RAJASTHAN)**

CERTIFICATE

This is to certify that the thesis entitled “**Synthesis and Functionalization of Heterocyclic Compounds *via* Palladium/Rhodium-Catalyzed Cross-Dehydrogenative Coupling Reactions**” submitted by **Mr. Vikki Narayan Shinde**, ID No. **2016PHXF0016P** for the award of Ph.D. Degree of the Institute embodies the original work done by him under our supervision.

Date:

Signature in full of the Supervisor

Name in capital block letters: **PROF. ANIL KUMAR**

Designation: Professor

Date:

Signature in full of the Co-supervisor

Name in capital block letters: **PROF. DALIP KUMAR**

Designation: Professor