

CERTIFICATE

This is to certify that the thesis entitled **Crystal Engineering of Bis(aryl)-di-imines, Bis(pyridyl)-diamides, Bis(pyridyl)-disulfonamides and Their Metal-Organic-Frameworks (MOFs): Analysis of Their Photophysical Properties, Metal-ion Sensing and Application of MOFs in Catalysis** and submitted by **Miss Moyna Das** ID No. **2014PHXF0408P** for award of Ph.D. Degree of the Institute embodies the original work done by her under my supervision.

Signature in full of the Supervisor:

Name in capital block letters: **Prof. MADHUSHREE SARKAR**

Designation: **Associate Professor**

Date: