

## **CERTIFICATE**

It is certified that the work contained in the thesis titled " *Some Theoretical and Experimental Studies on Parabolic Dish and Trough Type Solar Collector Systems*" by *Arun Kumar* has been carried out under our supervision and that this work has not been submitted elsewhere for a degree.

It is further certified that the student has fulfilled all the requirements of Comprehensive Examination, Candidacy, SOTA and Pre-submission Seminar for the award of Ph.D. Degree.

### **Supervisor**

Prof. S.K.Shukla

Department of Mechanical Engineering

IIT(BHU), Varanasi-221005

### **Co-supervisor**

Dr. J.V.Tirkey

Associate Professor

Department of Mechanical Engineering

IIT(BHU), Varanasi-221005