

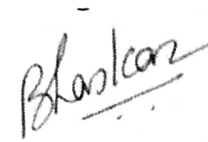
## CERTIFICATE

It is certified that the work contained in the thesis titled "*Early Classification of Sensors Generated Multivariate Time Series using Probabilistic Approaches*" by *Ashish Gupta* 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 requirements of Comprehensive Examination, Candidacy, and SOTA for the award of Ph.D. Degree.

  
Supervisor 9/9/2020

**Dr. Hari Prabhat Gupta**  
Assistant Professor,  
Dept. of Computer Science and Engineering,  
Indian Institute of Technology (BHU) Varanasi

  
Co-supervisor

**Dr. Bhaskar Biswas**  
Associate Professor,  
Dept. of Computer Science and Engineering,  
Indian Institute of Technology (BHU) Varanasi