



**VIDYASAGAR UNIVERSITY**  
**Department of Chemistry**  
Midnapore 721102, West Bengal, India

---

Dr. Subal Chandra Manna  
Associate Professor  
Department of Chemistry  
Vidyasagar University

**CERTIFICATE FROM THE SUPERVISOR**

This is to certify that the thesis entitled "Multidentate ligand based Co(II/III) and Cu(II) coordination compounds: Synthesis, crystal structure and molecular property" submitted by Soumen Manna, for the award of Ph. D. (Science) degree of Vidyasagar University, is absolutely based upon his own work under my supervision and neither this thesis nor any part of it has been submitted for any degree/diploma or any other academic award anywhere before.

*Subal Ch. Manna. 29.11.2020*  
(Dr. Subal Chandra Manna)

(Signature of the sole supervisor & date with official seal)