

**SYNTHESIS, CHARACTERIZATION AND APPLICATIONS
OF SOME NANOPARTICLES SUPPLEMENTED WITH
LIVING AND CHEMICAL SUBSTANCES**

A thesis submitted to the
UNIVERSITY OF NORTH BENGAL

For the award of
DOCTOR OF PHILOSOPHY (Ph.D.)
In
CHEMISTRY

By
DEBASMITA DAS, *M.Sc. in Chemistry*

Under the supervision and guidance of

DR. MAHENDRA NATH ROY
Professor of Chemistry

Department of Chemistry
University of North Bengal
Darjeeling, PIN- 734013, WB, INDIA

July
2022