

CERTIFICATE

This is to certify that the project report entitled "**Effect of substitution of Nickel on the electrochemical performance of Co_3O_4 spinel nanoparticles**" is a bonafied work carried out by **Jerald Thomas**, 209306 under the guidance of Dr. Nygil Thomas, Assistant Professor, Department of Chemistry, Nirmalagiri College, Kannur. The same is being submitted to the Post Graduation Department of Chemistry, St. Aloysius College in partial fulfilment of the requirements for the award of Master of Science in Chemistry. No part of this thesis has been presented for the award of any other degree.



Name & Signature of the HOD

Dr. Ronald Nazareth



Name and signature of the Guide

Dr. Richard Gonsalves