# Structural, magnetization, Critical exponent and Magnetocaloric study of the manganites oxides.

SUBMITTED TO ST. XAVIER'S COLLEGE, MAHUADANR

AFFILIATED TO NILAMBER PITAMBER UNIVERSITY

BACHELOR OF SCIENCE

BY

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## **DEPARTMENT OF PHYSICS**



# ST XAVIER'S COLLEGE MAHUADANR

Nationally accredited with Grade 'B' (NAAC)

MAHUADANR, LATEHAR, JHARKHAND-822119

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Ranit Toppo

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### **CERTIFICATE**

This is to certify that the project work entitled "Structural, magnetization ,Critical exponent and Magnetocaloric study of the manganites oxides." submitted to St. Xavier's college Mahuadanrin partial fulfilment to requirement for the award to bachelor of science in Physics to be awarded by the Affiliated to Nilamber Pitamber University is a bonafide record of the work carried out by Mr. RonitToppo (Reg. No.-NPU2021000218) during the academic year 2021-2024.

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