PROBING PHYSICS BEYOND THE STANDARD MODEL VIA THE PHENOMENOLOGICAL STUDY OF NEUTRINO MASSES, MIXINGS, AND RESONANT LEPTOGENESIS IN NEUTRINO MASS AND S_4 FLAVOUR MODELS

A thesis submitted in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

Mr. Bikash Thapa

Registration Number: TZ201053 of 2019



Department of Physics
School of Sciences
Tezpur University
Tezpur-784028, Assam, India

January, 2024