## JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD

HYDERABAD - 500 085, TELANGANA STATE, INDIA

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H.T No.: 1203PH08A7

Mr. Ganna Koteswara Rao

Slo. Pichainh

December - 2022 having fulfilled the academic requirements in has been admitted by the Executive Council to the Degree of

> Doctor of Philosophy Electronics & Communication Engineering

Topic: "Power Optimization and Symbol Detection in Pilot Based MIMO-OFDM Systems using PSO".

Given under the Seal of the University

Date: 18-03-2023

k. ventateward bo

DIRECTOR OF EVALUATION



VICE-CHANCELLOR

PC No 322002039