



E.M.G.YADAVA WOMEN'S COLLEGE MADURAI-625014

(An autonomous institution affiliated to Madurai Kamaraj University)

Re-accredited (3rd cycle) with Grade A⁺ and CGPA 3.51 by NAAC

BONAFIDE CERTIFICATE

This is to certify that this project report entitled, **“A STUDY ON LAPLACIAN ENERGY OF DIRECTED AND UNDIRECTED GRAPHS”** Submitted By **GAYATHRI .M (22PMA01)**, is based on the results of studies carried out by her under my guidance and supervision in the Post Graduate Department of Mathematics, **E.M.G. Yadava Women's college, Madurai**. This project or any part of it has not been submitted for any other degree.

Signature of

Head of the Department

Signature of the Guide

SIGNATURE OF THE EXTERNAL EXAMINER

Station: Madurai

Date: 28.03.2024