

# Poornaprajna Institute of Scientific Research

(Recognized by Department of Scientific & Industrial Research, GOI and MAHE, Manipal)

Promoted and managed by Admar Mutt Education Foundation

**Research Institute:** Bidalur Post, Devanahalli, Bengaluru-562164, India

**City Campus:** No. 4, 16<sup>th</sup> Cross, Sadashivnagar, Bengaluru-560080 Tel: 080 23611836

E-mail: shanbhag@ppisr.res.in, Web: www.ppisr.res.in



## CERTIFICATE

**Mr. Dilton Ashwin Mascarenhas**, the student of Dept. of Chemistry, St. Aloysius College (Autonomous) Mangalore completed his project work entitled as **“Hydrolysis of biomass derived furfuryl alcohol to produce levulinic acid using Beta zeolite catalyst”** as a partial fulfillment of the requirement for the award of M.Sc. under the supervision of Dr. Ganapati V. Shanbhag from July 26, 2022 to September 16, 2022 in Poomaprajna Institute of Scientific Research, Bengaluru. This research work was entirely carried out at PPISR and it is an intellectual property of PPISR. During this period, he learnt solid catalysts preparation, their characterization by different analytical techniques. He also learnt to conduct catalytic reactions in batch mode and product analysis by gas chromatograph. His work and conduct were found to be satisfactory.

Date: 6-6-2023

Place: Bengaluru

**Dr. Ganapati V. Shanbhag**

Associate Professor and HOD

Materials Science and Catalysis Division

**Dr. Ganapati V Shanbhag**

HOD and Associate Professor

Materials Science and Catalysis Division

Poornaprajna Institute of Scientific Research

PO - Bidalur, Tq: Devanahalli

Bengaluru-562 164, Karnataka.