## <u>CERTIFICATE</u>

This is to certify that this project entitled "A review on deposition and characterization on magnesium doped in zinc oxide thin film for optoelectronics application" is done by ANNU DEWANGAN under my direct supervision.

This project work has been carried out by them in the laboratories of the DEPARTMENT OF PURE AND APPLIED PHYSICS, GURU GHASIDAS CENTRAL UNIVERSITY in partial fulfillment of the requirements for the degree of Bachelor of Science in Electronics. The presentation of the work was held on ...... 2021.

Signature of the candidates

ANNU DEWANGAN ROLL NO.-18209009

Signature of the supervisor

Dr. R.K. PANDEY

(Assistant Professor) . ,

Dept. Pure & applied physics

विभागाध्यक्ष/H.O.D. शुद्ध एवं अनुप्रयुक्त भौतिकी विभाग Dept. of Pure & Applied Physics गुरु पासीदास विश्वविद्यालय Guru Ghasidas Vishwavidyalaya बिलासपुर (छ.गः)/Bilaspur (C.G.)