**CERTIFICATE** 

This is to certify that the project work "A Review on ZnO based Perovskite Solar

Cells" has been successfully carried out and submitted in the fulfilment of the requirement for

the M.Sc. IV semester of Pure and Applied Physics, Guru Ghasidas Vishwavidyalaya.

It is certified that all correction/suggestion indicated for the project has been

incorporated in it.

The project has been approved as it satisfies the requirement in respect of procedures

and experimental techniques prescribed for the project.

This project is done under the guidance of "Dr Rakesh Kumar Pandey" by "Avinash

Mahapatra" of M.Sc. IV semester, Physics, Guru Ghasidas Vishwavidyalaya.

Prof P. K. Bajpai

Pure and Applied Physics

GGV, Bilaspur (C.G)

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