



**DEPARTMENT OF PURE AND APPLIED PHYSICS**  
**Guru Ghasidas Vishwavidyalaya Bilaspur (C. G.) India**

( A Central University Established by Central University Act 2009 No.25 of 2009)

**CERTIFICATE**

This is to certify that Swati Ratnakar has carried out the project on The topic **“SUPERCAPACITOR”** in the Department of Pure and Applied Physics, Guru Ghasidas Vishwavidyalaya, Bilaspur under my supervision. She worked diligently and Methodically and has collected the literature very sincerely and carefully. To the Best of our knowledge, the work presented in this project is original and has not Been submitted anywhere. I recommend the project report to be forwarded to The respective examiners for evaluation. I wish her all success in her life & Career.

Submitted by  
Swati Ratnakar

Supervised by  
Dr. Arun Kumar Singh