

Certificate

This is to certify that Ms. Manan Vyas has regularly attended Physical Research Laboratory, Ahmedabad and has put more than 200 days of attendance with me at Physical Research Laboratory for her thesis work.

K.V. Knoba Bulman

Prof. Venkata Krishna Brahmam Kota (Guide) Theoretical Physics division Physical Research Laboratory Ahmedabad - 380 009, India.

Place: Ahmedabad Date: $\frac{3}{5}/\frac{2011}{2011}$

Endorsed by:

Anias In

Prof. Ánjan S. Joshipura (**Dean**) Physical Research Laboratory Ahmedabad - 380 009, India. प्रो. ए. एस. जोशीपुरा Prof. A.S. JOSHIPURA विशिष्ट वैज्ञानिक एवं डीन Outstanding Scientist & Dean भौतिक अनुसंधान प्रयोगशाला Physical Research Laboratory (भारत सरकार, अंतरिक्ष विभाग की यूनिट) (A Unit of Department of Space, Govt. of India) नवरंगपुरा, अहमदाबाद-380 009, भारत Navrangpura, Ahmedabad-380 009, INDIA