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**Department of Physics and Research,  
The National College, Jayanagar, Bangalore.**

## **CERTIFICATE**

This is to certify that the present Project titled "*Bio-active investigations of rare earth - doped bimetal oxide nanoparticles to enhance antimicrobial properties*" has been the outcome of an original study carried out by **Keerthana Jayaprakash** under the supervision of **Assistant Prof. Reshma K** towards the partial fulfilment of the requirements for the degree of M.Sc.Physics of The National College, Jayanagar, Bangalore.

This is to further certify that the work reported herein does not form a part of any other thesis/dissertation, on the basis of which a degree, diploma or a certificate has been conferred upon this or any other student in the past.

**Assistant Prof. Reshma K**

  
Project Supervisor

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