



## DEPARTMENT OF BIOTECHNOLOGY

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### CERTIFICATE

This is to certify that the thesis entitled “**Glutamatergic NMDA and AMPA Receptors Functional Regulation in Streptozotocin Induced Diabetic Rats: Effect of Vitamin D<sub>3</sub> and Curcumin Supplementation**” is a bonafide record of the research work carried out by **Mr. Jayanarayanan S**, under my guidance and supervision in the Department of Biotechnology, Cochin University of Science and Technology and that no part thereof has been presented for the award of any other degree.

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**(C. S. Paulose)**

**December 21, 2012**