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Certificate

Certified that the work presented in this thesis entitled “Photoluminescence investigation of hydrothermally grown ZnO and 3d transition metal (Mn/Co/Ni/Cu) doped ZnO nanostructures” is based on the authentic record of research carried out by Vinod. R under my guidance and supervision at the Department of Physics, Cochin University of Science and Technology, Cochin-22, India and has not been included in any other thesis submitted previously for the award of any degree. I declare that all suggestions made by the audience during Pre-synopsis seminar and recommended by the Doctoral committee have been incorporated in the thesis.

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