### **CERTIFICATE**

This is to certify that the thesis entitled "DEEP LEARNING FRAMEWORK FOR EFFICIENT PREDICTION OF CAUSATIVE MUTATIONS, GENES AND THEIR SUSCEPTIBILITY TO AUTISM SPECTRUM DISORDER" submitted to Bharathiar University, in partial fulfillment of the requirements for the award of the Degree of Doctor of Philosophy in Computer Science is a record of original research work done by V. Pream Sudha during the period September 2012 to August 2019 of her study in the Department of Computer Science at PSGR Krishnammal College for Women, Coimbatore under my supervision and guidance and the thesis has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title of any candidate of any university.

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### **DECLARATION**

I, V. Pream Sudha hereby declare that the thesis, entitled "DEEP LEARNING FRAMEWORK FOR EFFICIENT PREDICTION OF CAUSATIVE MUTATIONS, GENES AND THEIR SUSCEPTIBILITY TO AUTISM SPECTRUM DISORDER" submitted to Bharathiar University, in partial fulfillment of the requirements for the award of the Degree of Doctor of Philosophy in Computer Science is a record of original and independent research work done by me during September 2012 to August 2019 under the Supervision and Guidance of Dr. (Mrs.) M. S. Vijaya, M.Sc., M.Phil., Ph.D, Associate Professor and Head, Department of Computer Science at PSGR Krishnammal College for Women, Coimbatore and it has not formed the basis for the award of any Degree / Diploma / Associateship / Fellowship or other similar title to any candidate in any university.

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This is to certify that the Ph.D. candidate Mr/Ms V. Pream Sudha working under my supervision has published a research article in the refereed journal named Journal of Advanced Research in Dynamical and Control Systems with Volume No. 11 Page Numbers 134-141 and year of publication 2019 published by Institute of Advanced Scientific Research. The contents of the publication incorporate part of the results presented in his/her thesis.

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