

CERTIFICATE

It is certified that the work contained in the thesis titled “**Design, Simulation and Performance Improvement Studies of the Free Electron Laser Amplifiers**” by “**Ram Gopal**” has been carried out under my supervision and that this work has not been submitted elsewhere for a degree.

It is further certified that the student has fulfilled all the requirements of Comprehensive Examination, Candidacy and State of the Art (SOTA) for the award of Ph.D. Degree.

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