Design and Development of Frequency Reconfigurable Antennas for Cognitive Radio

Thesis submitted in partial fulfillment for the
Award of Degree

Doctor of Philosophy

By

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CERTIFICATE

It is certified that the work contained in the thesis entitled **"Design and Development of Frequency Reconfigurable Antennas for Cognitive Radio"** by **Mr. Praveen Singh Rathore (Roll No. : 19091005)** has been carried out under my supervision and 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) Examination for the award of Ph. D. Degree.

17/06/2025

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DECLARATION BY THE CANDIDATE

I hereby declare that the work presented in the dissertation entitled "**Design and Development of Frequency Reconfigurable Antennas for Cognitive Radio**" is an authentic record of my own work carried out at the Department of Electronics Engineering, Indian Institute of Technology (Banaras Hindu University), Varanasi as the requirement for the award of the degree of Doctor of Philosophy in Electronics Engineering, submitted in the Indian Institute of Technology (Banaras Hindu University), Varanasi for the session 2024-2025 under the supervision of **Prof. Manoj Kumar Meshram**, Department of Electronics Engineering, Indian Institute of Technology (Banaras Hindu University), Varanasi, India.

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It is certified that the above statement made by the candidate is correct to the best of my knowledge.

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