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CERTIFICATE

This is to certify that the Dissertation work entitled **"DEVELOPMENT OF SLANT-HIGH RESOLUTION SOFTWARE DEFINED RADAR (SDRadar) TARGET DETECTION SYSTEM USING LabVIEW"** is being submitted by **Mr. PRASHANTH KUMAR BEJJARAPU** in partial fulfillment of the requirement for the award of the degree of **Master of Technology In Embedded Systems**, by Jawaharlal Nehru Technological University Hyderabad is a record of bonafide work carried out by her under my guidance and supervision from 2017 to 2018.

The results presented in this dissertation have been verified and are found to be satisfactory.

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ABSTRACT

This project proposes a prototype developed for obtaining precise slant high resolution with software defined radar (SDRadar) target detection system using LabVIEW/Simulink. Initial phase of the project includes quantitative analysis of the parameters associated with target system and SDRadar. The major parameters include bandwidth enhancement, high signal to noise ratio (SNR), operating frequency, down range, slant range and number of pulses which is performed using LabVIEW software. Stretch processor and Doppler shift algorithms are proposed for obtaining the best slant high resolution and both are compared. Fast Fourier Transform (FFT) technique is used as transformation tool for both the algorithms proposed.

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