

A Project report on
**IMAGE TRANSMISSION USING DWT TECHNIQUE OVER
OFDM SYSTEM**

submitted in partial fulfilment of the requirements for the award of degree of
BACHELOR OF TECHNOLOGY

In

ELECTRONICS AND COMMUNICATION ENGINEERING

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AVANTHI INSTITUTE OF ENGINEERING & TECHNOLOGY

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TAMARAM (P.O), MAKAVARAPALEM (M.O) , NARSIPATNAM (R.D)

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DEPARTMENT OF ELECTRONICS AND COMMUNICATION ENGINEERING

2017-2021

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**DEPARTMENT OF
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BONAFIDE CERTIFICATE

This is to certify that the project entitled "IMAGE TRANSMISSION USING DWT TECHNIQUE OVER OFDM SYSTEM" in partial fulfilment for the of degree of Bachelor of Technology in ELECTRONICS AND COMMUNICATION ENGINEERING, at VAN THI INSTITUTE OF ENGINEERING AND TECHNOLOGY, MAKAVARAPALEM, VISA KHAPATNAM is a bonafied work carried out by A.BHARGAVNAVEEN(17811A0404), D.TEJASRUTHI(17811A0414), A.SIVAJI(17811A0405), K.SRINUVASULU(17811A0428) under the guidance and supervision during 2017-2021.


INTERNAL GUIDE

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EXTERNAL EXAMINER

ABSTRACT

In many applications retransmission of lost packets are not permitted. In an OFDM system, due to channel fading, only a subset of carriers is usable for successful data transmission. If the channel state information is available at the transmitter, it is possible to take a proactive decision of mapping the descriptions optimally onto the good subcarriers and discard at the transmitter itself the remaining descriptions, which would have been otherwise dropped at the receiver due to unacceptably high channel errors.

In this project we present an energy saving approach to transmission of discrete wavelet transformation based compressed image frames over the OFDM channels. Based on one-bit channel state information at the transmitter, the descriptions in order of descending priority are assigned to the currently good channels. In order to reduce the system power consumption, the mapped descriptions onto the bad sub channels are dropped at the transmitter. Via analysis, supported by MATLAB simulations, we demonstrate the usefulness of our proposed scheme in terms of system energy saving without compromising the received quality in terms of peak signal-noise ratio.