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(54) Title of the invention : PERFORMANCE OF MULTICARRIER MODULATION TECHNIQUES WITH AND WITHOUT PROPOSED MELS CHANNEL ESTIMATION METHOD

<p>(51) International classification :H04L0025020000, H04L0025030000, H04L0001000000, H04L0027260000, H04L0027380000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : <b>1)Praveen Kumar Malik</b> Address of Applicant :F3 001 Nitti Shri Shourya Green Surya Enclave ----- <b>2)Shaik Nilofer</b> <b>3)Manju Padidela</b> Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : <b>1)Praveen Kumar Malik</b> Address of Applicant :F3 001 Nitti Shri Shourya Green Surya Enclave ----- <b>2)Shaik Nilofer</b> Address of Applicant :1-5-1120/560/2/103, Bharathi Aavaas, Old Alwal, Secundrabad, Telengana, India ----- <b>3)Manju Padidela</b> Address of Applicant :Villa 14, Praneeth Pranav Leaf, Mallampet, Bachupally, Hyderabad, Telangana, India -----</p>
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(57) Abstract :

Symbols are frequently transmitted in wireless communication channels, and as they travel through the channel, they encounter a variety of harmful effects. This negative effect is caused by interaction with environmental objects such as mountains and buildings, which causes multipath fading and signal attenuation. In this regard, we must ensure that transmitting signals are detected accurately. As a result, channel estimation is extremely useful in wireless communication systems. Precise channel estimation is required for accurate detection of transmitted symbols. Channel estimation allows the receiver to approximate the communication channel's channel impulse response (CIR) and estimate the impact of the communication channel on the transmitted symbols. This is necessary for accurate rebuilding of the transmitted symbols. Keeping in this view for MCM techniques a channel estimation method is proposed so that the information is detected at the receiver end without errors. The proposed channel estimation technique is modified entropy based least square channel estimation technique. In this method at the receiver end the mean of the received vector is calculated based on the modulation order. The modulation method used is OQAM and order of modulation 256. This is utilized to reduce the mean error of the received data and to improve the data rate of the system. After calculating the mean value of the received vector, the data is given to LS estimate to finally detect the signal.

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