



Research Article



## A Robust Channel Estimation for SCFDMA System

Soma Umamaheshwar<sup>1</sup>, Tipparti Anil Kumar<sup>2</sup>, and Kunupalli Srinivasa Rao<sup>3</sup>

### Corresponding Author:

icetet2014@yahoo.com

### DOI:

<http://dx.doi.org/>

10.17812/IJRA.1.3(17)2014

### Manuscript:

Received: 15<sup>th</sup> Sep, 2014

Accepted: 22<sup>nd</sup> Sep, 2014

Published: 30<sup>th</sup> Sep, 2014

### ABSTRACT

In this paper, a robust technique is proposed for a single carrier frequency division multiple access system channel estimation in flat- fading non- Gaussian channels. Further, a new M-estimator is proposed for the robustification of the proposed detector. Simulation results are also provided to demonstrate the efficacy of the proposed detector over the least squares, Huber and Hampel based detectors in flat- fading non- Gaussian channels.

**Keywords:** Channel estimation, fading channels, M-estimator, SC-FDMA.

<sup>1</sup>Varadha Reddy College of Engineering, Warangal, Telangana, India

<sup>2</sup>SR Engineering college, Warangal, Telangana, India.

<sup>3</sup>Principal, TRRCE, Hyderabad, Telangana, India

### IJRA - Year of 2014 Transactions:

Month: July-September

Volume – 1, Issue – 3, Page No's: 80-83

Subject Stream: Electronics

**Paper Communication:** Through Conference of ICETET-2014

**Paper Reference Id:** IJRA-2014: 1(3)80-83