## PAPER ID: ICSMEC22-EC0101

## Successive Interference Cancellation for MIMO-OFDM Systems

Dr. P. Joel Josephson<sup>1</sup>, A. Akhila<sup>2</sup>, B. Chandrika<sup>3</sup>, Prashanth Reddy<sup>4</sup>, G. Samuel<sup>5</sup>
<sup>1</sup> Professor, Department of Electronics & Communication Engineering, St. Martin's Engineering College. Secunderabad, Telangana -500100.
2, 3,4,5 Student, Department of ECE, St.Martin's Engineering College, Dhulapally, Secunderabad-500100, Telangana, India.

## Abstract:

Recently 4G and 5G Communication are continuously developing to meet the user requirements like data rate, throughput. In the existing Basic FDM (Frequency Division Multiplexing) based MIMO (Multiple-Input and Multiple-Output) systems are consuming the higher power consumptions and increasing the error rates. To overcome those problems, this project is focusing on implementation of MIMO OFDM (Orthogonal Frequency Division Multiplexing) system with SIC (Successive Interference Cancellation), which can reduce the various data error, frame errors occurring. This project will be implemented using MATLAB R2016A software with the help of Digital Signal Processing Toolbox.

**Keywords:** SVC, STATCOM, UPFC, Adaptive distance protection.



Organized by Department of Electronics and Communication Engineering, St Martin's Engineering College (www.smec.ac.in).

ISBN: 978-81- 953918-6-8