Pattern Reconfigurable Mimo Antenna

S.A. Amutha Jeevakumari
Department of Electronics and Communication Engineering,
Adhiparasakthi Engineering College,
Melmaruvatur, India
jeepriyam@gmail.com

Dr.V.Nagarajan
Department of Electronics and Communication Engineering,
Adhiparasakthi Engineering College,
Melmaruvatur, India.
nagarajanece31@gmail.com

***Abstract*— Radiation pattern reconfiguration is a new technique for antenna design as it enables the antennas to adapt to different propagation. Multi Input Multi Output (MIMO) antennas are recently more focused in mobile communication. In this paper, a novel dual feed pattern reconfigurable MIMO antenna is designed without using switches. To implement the design, a circular Defected Ground Structure (DGS) with concentric split ring (SR) is employed beneath the signal plane. The signal plane comprises of octagonal ring pattern with orthogonal dual feed arrangement. The operation of the antenna is well analyzed with its reflection coefficient and radiation pattern. The proposed antenna is resonating at same frequency with different radiation pattern. The prototype is designed to be utilized in LTE700 and GSM900 bands respectively.**

***Key words:* MIMO, Reconfigurable antenna, DGS, Split Ring, Pattern.**

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