Department of Electronics & Telecommunication Engineering

PROJECT PROPOSAL

1	Title of the project: **MIMO antenna array design for 5G applications** Area of project: Antenna design
2	Abstract: Eight-port mobile-phone antenna with compact dual-polarized radiation elements providing wide impedance bandwidths for 5G applications. Eight-element MIMO smartphone antenna can achieve the channel capacity of 37 bps/Hz which is close to eight times that of a single antenna for single-input/single-output operation. With such a channel capacity and a wide frequency spectrum (200 MHz, at least), the data rate can be much higher than 1 Gbps. The antenna is designed to operate at 3.6 GHz, a candidate frequency band for sub-6-GHz 5G cellular networks.
3	Expected Outcome of the project: The design provides full radiation coverage and supports different polarizations
4	Number of interns required - 4
5	Project guide – Prof. Hema Raut
6	Preferred year of the intern - BE
7	Duration of the project – 6 months

Prof. Pushkar Sathe
Project Coordinator

Prof Dr. Preeti Hemnani
(HOD-EXTC)