

DESIGN OF THE ELECTRIC ANTENNA FOR THE DETECTION OF THE CORONAL MASS EJECTIONS FROM THE SUN

**DEVARAJ B. KHANDEKAR, ABHISHEK VANJARI, RAJENDRAKUMAR A. PATIL, RADHIKA JOSHI
& DEEPA YEROLKAR**

Department of Electronics and Telecommunication, College of Engineering (COEP), Shivajinagar,
Pune, Maharashtra, India

ABSTRACT

The Electric antenna is designed to significantly advance the understanding of the three- dimensional (3-D) structure and evolution of coronal Mass Ejections (CMEs) and their interaction with the interplanetary medium and terrestrial. The Electric Antenna is subjected on spacecraft to measure the evolution of coronal Mass Ejections (CMEs). Interplanetary radio bursts are generated from electron beams at interplanetary shocks and solar flares and are observed from the sun to 1 AU, corresponding to frequencies of approximately 200 MHz to 10 KHz. This phenomenon is measured by using three monopole antennas which are placed orthogonal to each other and mounted on spacecraft. The design of antenna is essentially a continuation of research, using a newer version of the CADFEKO software.

KEYWORDS: Sun, Coronal Mass Ejection, S-parameter, CADFEKO Software