A MODIFIED COAXIAL COLLINEAR ANTENNA

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ABSTRACT

DUE TO THE CHARACTERISTICS OF SIMPLE CONFIGURATION , EASY AND LOW-COST MANUFACTURING PROCESS , THE COAXIAL COLLINEAR ANTENNA IS NOW GETTING MORE ATTENTION IN ANTENNA COMMUNITY AND ALSO WIDELY ADOPTED FOR BASE STATION OF CELLAR COMMUNICATIONS. THIS THESIS FIRST INTRODUCED ITS PRINCIPLE BRIEFLY FOLLOWED BY DESIGNING AND MANUFACTURING AN MODIFIED COAXIAL COLLINEAR ANTENNA IN PRACTICE. THEN WE USED THE MICROWAVE CHAMBER OF THE WIRELESS COMMUNICATION LABORATORY AND NEAR FIELD MEASUREMENT SYSTEM TO MEASURE THE PATTERN CHARACTERISTIC OF THE ANTENNA FOR FURTHER ANALYSIS . THE ANALYSIS OF THE CURRENT AMPLITUDE AND PHASE DISTRIBUTION OF COAXIAL COLLINEAR ANTENNA AT THE DIFFERENT PLANE AND DISTANCE WILL THEN HELP IMPROVE THE DESIGN PARAMETERS FOR BETTER PERFORMANCE.

Keywords : COAXIAL COLLINEAR ANTENNA , MICROWAVE CHAMBER , COAXIAL LINEAR ARRAY , EQUIVALENT AMPLITUDE AND INPHASE , NEAR-FIELD SYSTEM .

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