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(57) Abstract :
The present invention is used to construct a coaxially fed 15-Segment fractal antenna. The proposed antenna was built up to second iteration on the traditional rectangular patch antenna. Further, Characteristic Mode Analysis (CMA) is used to scrutinize the electromagnetic behaviour of the fractal structure in multilayer medium .The investigation of the above analysis provides physical insights on significant/non significant modes existing in the radiating structure. With the inferred observations, the surface current distribution and the modal significance of the proposed antenna is further studied to carry out the structure level optimisation. The resulting modified 15-Segment fractal antenna is found to be a suitable design for C and X band applications

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