

## A Novel Antenna Design for Telemedicine Applications

**Authors :** Amar Partap Singh Pharwaha, Shweta Rani

**Abstract :** To develop a reliable and cost effective communication platform for the telemedicine applications, novel antenna design has been presented using bacterial foraging optimization (BFO) technique. The proposed antenna geometry is achieved by etching a modified Koch curve fractal shape at the edges and a square shape slot at the center of the radiating element of a patch antenna. It has been found that the new antenna has achieved 43.79% size reduction and better resonating characteristic than the original patch. Representative results for both simulations and numerical validations are reported in order to assess the effectiveness of the developed methodology.

**Keywords :** BFO, electrical permittivity, fractals, Koch curve

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