

A Novel Antenna Design for Telemedicine Applications

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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

Conference Title : ICSPCN 2014 : International Conference on Signal Processing, Communications and Networking

Conference Location : Melbourne, Australia

Conference Dates : December 16-17, 2014