

Artificial neural network model for microwave propagation in water melon

ABSTRACT

The propagation and attenuation of microwave traversing through water melon at 2.45GHz were modeled and validated. An attenuation experiment was carried out on water melon using free space transmission technique and an Artificial Neural Network (ANN) was designed, trained and deployed for the observed data from laboratory experiments. This generated a compact system against which existing mathematical models were compared. The results in both cases were found to be in congruence.

Keyword: Rectangular microstrip antenna; Artificial neural network; Attenuation