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(57) Abstract :
Food-borne illnesses are commonly reported phenomenon which threatens the health of children. Detecting the adulterants in food is a way to mitigate -the threat faced by the children. So, a Multianalyte Metamaterial inspired sensing device for detecting adulteration .in children's food items is designed. The proposed device is compact and reconfigurable one which can simultaneously detect various adulterants. Integrated Metamaterial and sinuous structure will provide reconfigurability. Hence the proposed antenna can detect the dielectric characteristics of Sample under Test (SUT) at various bands of frequencies. Since the dielectric characteristics of the adulterants are varying with respect to frequencies, the proposed device can sense the characteristics of Milk, Honey etc.

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