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Patent Search

Invention Title	A META-SURFACE ANTENNA WITH IOT CONFIGURED ARTIFICIAL NEURAL NETWORK SYSTEM
Publication Number	37/2022
Publication Date	16/09/2022
Publication Type	INA
Application Number	202241050701
Application Filing Date	05/09/2022
Priority Number	
Priority Country	
Priority Date	
Field Of Invention	BIO-CHEMISTRY
Classification (IPC)	A61P0025280000, A61P0025240000, A61P0025200000, A61P0009100000, A61P0025080000

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Abstract:

The present invention discloses a meta-surface antenna with IoT configured Artificial Neural Network system. The present invention disclosed antenna's prototype is Rogers RO4350B material with a permittivity of 3.48 and a thickness of 1.524 mm. The MS is modelled as an artificially manufactured periodic array of metallic inclusions and I-shaped shapes. Results from numerical analysis support the double negative features of meta-material. Two-layered frequency reconfigurable antenna (ANN-M) inspired by artificial neural network-based metasurface (MS). The intended two-layered structure consists of two substrates stacked one on top of the other without a gap between. Accompanied Drawing [FIG. 1]

Complete Specification

Description:[001] The present invention relates to the field of the antenna. The invention more particularly relates to a meta-surface antenna with IoT configured Artificial Neural Network system.

BACKGROUND OF THE INVENTION

[002] The following description provides the information that may be useful in understanding the present invention. It is not an admission that any of the information provided herein is prior art or relevant to the presently claimed invention, or that any publication specifically or implicitly referenced is prior art.

[003] Further, the approaches described in this section are approaches that could be pursued, but not necessarily approaches that have been previously conceived or pursued. Therefore, unless otherwise indicated, it should not be assumed that any of the approaches described in this section qualify as prior art merely by virtue of their inclusion in this section.

[004] The present invention provides a system to examine the performance of a low profile Meta-Surface (MS) antenna built on an artificial neural network and equipped with a two-layered, Internet of Things-inspired frequency configurable. The present invention focuses on the development of novel antennas with distinctive capabilities driven by the market due to technological advancements in wireless systems. They can transition between different working frequencies, polarizations, and radiation pattern modes to provide versatility depending on the needs of the environment. The perfect qualities include a wide adjustable range, enhanced frequency selectivity, and reliable patterns. A reconfigurable antenna can change the state of conduct in which it operates by changing the distribution of current on its surface.

[005] Accordingly, on the basis of aforesaid facts, there remains a need in the prior art to provide a meta-surface antenna with IoT configured Artificial Neural Network system. The proposed system overcomes the problem of conventional and complex techniques, and which have the potential of accelerating the various intelligent

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Page last updated on: 26/06/2019