

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511095601 A

(19) INDIA

(22) Date of filing of Application :05/10/2025

(43) Publication Date : 05/12/2025

(54) Title of the invention : A SENSOR-BASED DEVICE FOR REAL-TIME ELECTROMAGNETIC INTERFERENCE MONITORING

(51) International classification	:A61B0005000000, G05B0023020000, G16H0050200000, G08B0025100000, G06N0020200000	(71) Name of Applicant : 1)NOIDA INSTITUTE OF ENGINEERING & TECHNOLOGY Address of Applicant :19, Knowledge Park-II, Institutional Area, Greater Noida – 201306, Uttar Pradesh, India. Uttar Pradesh India
(31) Priority Document No	:NA	(72) Name of Inventor :
(32) Priority Date	:NA	1)NIDHI SHARMA
(33) Name of priority country	:NA	2)Dr. DHANANJAY SINGH
(86) International Application No	:	
Filing Date	:01/01/1900	
(87) International Publication No	: NA	
(61) Patent of Addition to Application Number	:NA	
Filing Date	:NA	
(62) Divisional to Application Number	:NA	
Filing Date	:NA	

(57) Abstract :

The invention discloses a sensor-based device for real-time electromagnetic interference monitoring comprising a sensor array (101), signal conditioning unit (102), processing module (103), wireless communication unit (104), cloud interface (105), and display/alert system (106). The system enables continuous detection, classification, and reporting of EMI events. Machine learning enhances prediction of interference trends, while wireless and cloud integration facilitate remote monitoring. This compact, cost-effective device ensures reliability and safety in critical electronic and communication environments by providing real-time awareness and predictive analytics of electromagnetic disturbances.

No. of Pages : 15 No. of Claims : 6