

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511068547 A

(19) INDIA

(22) Date of filing of Application :18/07/2025

(43) Publication Date : 08/08/2025

(54) Title of the invention : A PORTABLE MAGNETIC FIELD VISUALIZER USING REACTIVE MICRO-BEAD ARRAYS

(51) International classification :A61N0002000000, A61N0002020000, H05K0009000000, H02K0049100000, H01F0027360000

(86) International Application No :NA
Filing Date :NA

(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

(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. -----

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

1)ASHISH PATHAK

Address of Applicant :Department of Physics, Noida Institute of Engineering & Technology, Greater Noida. Greater Noida -----

(57) Abstract :

A portable magnetic field visualizer includes a transparent visualization window (102), reactive micro-bead array (103) suspended in a viscous medium, and a base housing (101) with magnetic shielding (104) and a substrate (105). The micro-beads align visibly along magnetic field lines in real-time, providing intuitive field visualization. The invention enables safe, mess-free, and reusable demonstrations of magnetic fields without external power, suited for educational and technical environments.

No. of Pages : 13 No. of Claims : 5