

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202111023202 A

(19) INDIA

(22) Date of filing of Application :25/05/2021

(43) Publication Date : 03/03/2023

(54) Title of the invention : ELECTROMAGNETIC CLEANING DEVICE AND METHOD

(51) International classification	:C02F0001480000, B03C0001280000, C02F0009000000, C02F0001400000, C12N0015100000	(71)Name of Applicant : 1)Chitkara Innovation Incubator Foundation Address of Applicant :SCO: 160-161, Sector - 9c, Madhya Marg, Chandigarh- 160009, India. Chandigarh India
(31) Priority Document No	:NA	(72)Name of Inventor :
(32) Priority Date	:NA	1)MEENAKSHI, Dhiman
(33) Name of priority country	:NA	2)PARTHA, Khanra
(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	

(57) Abstract :

The present disclosure pertains to an electromagnetic cleaning device and method. The device (100) includes a container (102), a nano magnetic material (104), a movable magnetic bar (106), and a sound generator (108). The container (102) adapted to receive and accommodate a pre-defined amount of waste fluid, and includes four quadrant curved metal sheet wounded by one or more copper coil. The nano magnetic material (104) is dispersed inside the container (102), and facilitates in binding and coagulating pollutants onto the nano magnetic materials of the waste fluid, and enables in separating the magnetic pollutants from the non magnetic pollutants immersed inside the waste fluid. The movable magnetic bar (106) is configured to be placed inside the container (102), where the movable magnetic bar (106) facilitates collecting pollutants from the waste fluid, where an electromagnetic field is applied in direction of the waste fluid to facilitate collection of the metallic pollutants through magnetization.

No. of Pages : 18 No. of Claims : 8