

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511095650 A

(19) INDIA

(22) Date of filing of Application :06/10/2025

(43) Publication Date : 05/12/2025

(54) Title of the invention : A WOUND HEALING HYDROGEL WITH BIOACTIVE MOLECULE DELIVERY PROPERTIES

(51) International classification	:A61P0017020000, A61K0009000000, A61K0009060000, A61L0027540000, A61K0045060000	(71) <b>Name of Applicant :</b> <b>1)NOIDA INSTITUTE OF ENGINEERING &amp; TECHNOLOGY</b> Address of Applicant :19, Knowledge Park-II, Institutional Area, Greater Noida – 201306, Uttar Pradesh, India. Uttar Pradesh India
(31) Priority Document No	:NA	(72) <b>Name of Inventor :</b>
(32) Priority Date	:NA	<b>1)Dr. ARVIND KUMAR</b>
(33) Name of priority country	:NA	<b>2)RAMISH MAQSOOD</b>
(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 wound healing hydrogel (1) with bioactive molecule delivery properties, comprising a polymeric matrix (2), nano-carrier encapsulation system (3), and therapeutic agents (4). The hydrogel provides controlled, sustained release through responsive elements (5), maintains moisture balance via mechanism (7), and ensures accelerated wound healing, infection prevention, and tissue regeneration.

No. of Pages : 14 No. of Claims : 6