

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511106991 A

(19) INDIA

(22) Date of filing of Application :05/11/2025

(43) Publication Date : 26/12/2025

(54) Title of the invention : A VIRTUAL REALITY SYSTEM FOR REMOTE SCIENTIFIC EXPERIMENT SIMULATIONS

(51) International classification	:H04N 21/241, G06F 16/10, H04N 21/437, G06F 16/25, H04N 21/6377	(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 (72) Name of Inventor : 1)Dr. DEEPTI 2)BANDANA KUMARI
(31) Priority Document No	:NA	
(32) Priority Date	:NA	
(33) Name of priority country	:NA	
(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 present invention relates to a Virtual Reality system (100) for remote scientific experiment simulations, integrating VR headset (101), haptic controllers (102), AI-based simulation engine (103), experiment library (104), user interface module (105), and cloud collaboration server (106). The system enables immersive, accurate, and safe laboratory experiences by replicating real-world experiments virtually. It supports multi-user collaboration, scalability, and real-time analytics, providing cost-effective and risk-free alternatives to physical laboratories, thereby enhancing scientific education and research accessibility globally.

No. of Pages : 16 No. of Claims : 6