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(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)Dr. RAJESH KUMAR CHAUBEY
Address of Applicant :Department of Mathematics, Noida Institute of Engineering & Technology, Greater Noida. Greater Noida -----

(57) Abstract :

A 3D solid visualization cube (1) with variable projection panels (3), movable slicing planes (2), and a central solid mount (4) enables learners to interactively observe projections and cross-sections of geometric solids. Equipped with a rotatable base (5) and optional AR-compatible mount (7), the device supports tactile, visual, and hybrid education. The invention enhances spatial reasoning, projection drawing skills, and inclusion for visually impaired students. It serves as a versatile and reusable tool for geometry education.

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