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<p>(51) International classification :G06N0003080000, G06N0003045000, G06T0007000000, G06V0010764000, G06F0018210000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No :NA Addition to Application Number :NA Filing Date :NA</p> <p>(61) Patent of Addition to Application Number :NA Filing Date :NA</p> <p>(62) Divisional to Application Number :NA Filing Date :NA</p>	<p>(71)Name of Applicant : 1)NOIDA INSTITUTE OF ENGINEERING & TECHNOLOGY Address of Applicant :19, KNOWLEDGE PARK-II, INSTITUTIONAL AREA, GREATER NOIDA-201306, GAUTAM BUDDHA NAGAR, UTTAR PRADESH, INDIA Gautam Buddha Nagar -----</p> <p>Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : 1)KHUSHI NARANG Address of Applicant :NOIDA INSTITUTE OF ENGINEERING & TECHNOLOGY, 19, KNOWLEDGE PARK-II, INSTITUTIONAL AREA, GREATER NOIDA-201306, GAUTAM BUDDHA NAGAR, UTTAR PRADESH, INDIA Gautam Buddha Nagar -----</p> <p>2)ANISH SINGH Address of Applicant :NOIDA INSTITUTE OF ENGINEERING & TECHNOLOGY, 19, KNOWLEDGE PARK-II, INSTITUTIONAL AREA, GREATER NOIDA-201306, GAUTAM BUDDHA NAGAR, UTTAR PRADESH, INDIA Gautam Buddha Nagar -----</p> <p>3)MUKUND TIWARI Address of Applicant :NOIDA INSTITUTE OF ENGINEERING & TECHNOLOGY, 19, KNOWLEDGE PARK-II, INSTITUTIONAL AREA, GREATER NOIDA-201306, GAUTAM BUDDHA NAGAR, UTTAR PRADESH, INDIA Gautam Buddha Nagar -----</p> <p>4)MR ANKUR CHAUDHARY Address of Applicant :NOIDA INSTITUTE OF ENGINEERING & TECHNOLOGY, 19, KNOWLEDGE PARK-II, INSTITUTIONAL AREA, GREATER NOIDA-201306, GAUTAM BUDDHA NAGAR, UTTAR PRADESH, INDIA Gautam Buddha Nagar -----</p> <p>5)DR RITESH RASTOGI Address of Applicant :NOIDA INSTITUTE OF ENGINEERING & TECHNOLOGY, 19, KNOWLEDGE PARK-II, INSTITUTIONAL AREA, GREATER NOIDA-201306, GAUTAM BUDDHA NAGAR, UTTAR PRADESH, INDIA Gautam Buddha Nagar -----</p> <p>6)MR RAM KUMAR SHARMA Address of Applicant :NOIDA INSTITUTE OF ENGINEERING & TECHNOLOGY, 19, KNOWLEDGE PARK-II, INSTITUTIONAL AREA, GREATER NOIDA-201306, GAUTAM BUDDHA NAGAR, UTTAR PRADESH, INDIA Gautam Buddha Nagar -----</p> <p>7)MR. K PRABHANJAN KUMAR Address of Applicant :NOIDA INSTITUTE OF ENGINEERING & TECHNOLOGY, 19, KNOWLEDGE PARK-II, INSTITUTIONAL AREA, GREATER NOIDA-201306, GAUTAM BUDDHA NAGAR, UTTAR PRADESH, INDIA Gautam Buddha Nagar -----</p> <p>8)DR KARAN SINGH Address of Applicant :NOIDA INSTITUTE OF ENGINEERING & TECHNOLOGY, 19, KNOWLEDGE PARK-II, INSTITUTIONAL AREA, GREATER NOIDA-201306, GAUTAM BUDDHA NAGAR, UTTAR PRADESH, INDIA Gautam Buddha Nagar -----</p>
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(57) Abstract :

Disclosed herein is a vision IQ: harnessing AI system to identify visual elements in images (100) comprises one or more processors and memory (102) configured to execute a software pipeline implemented using programming tools. The system also includes a deep learning-based image analysis engine (104) comprising convolutional neural networks (CNNs) trained using a framework. The system also includes an image preprocessing and augmentation module (106), configured to normalize, resize, and augment user-provided images to enhance model robustness and generalization. The system also includes a real-time detection module (108) configured to process input images and output identified visual elements dynamically, supporting domain-specific recognition tasks through adaptable training procedures. The system also includes an active learning module (110) comprising a human-in-the-loop feedback loop for continuous learning and iterative model improvement. The system also includes a deployment module (112) configured to operate in cloud-based or edge environments.

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