(12) PATENT APPLICATION PUBLICATION
(19) INDIA
(22) Date of filing of Application :30/11/2023

(21) Application No.202311081238 A
(43) Publication Date : 29/12/2023

(54) Title of the invention : A SYSTEM AND METHOD FOR GENERATING DISPLACEMENT MAPS FROM AN IMAGE TEXTURE

(51) International classification :G06T0015040000, G06N0003080000, G06T0003000000, G06T0007000000, H04L0067100000
(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

(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 ---------- ----------
Name of Applicant : NA
Address of Applicant : NA
(72)**Name of Inventor :**
1)AYUSH CHANDAN
Address of Applicant :Noida Institute Of Engineering & Technology, 19, Knowledge Park-II, Institutional Area, Greater Noida-201306, Gautam Buddha Nagar, Uttar Pradesh, India Greater Noida ---------- ----------
2)ANURAG CHANDEL
Address of Applicant :Noida Institute Of Engineering & Technology, 19, Knowledge Park-II, Institutional Area, Greater Noida-201306, Gautam Buddha Nagar, Uttar Pradesh, India Greater Noida ---------- ----------
3)DR. HITESH SINGH
Address of Applicant :Noida Institute Of Engineering & Technology, 19, Knowledge Park- II, Institutional Area, Greater Noida-201306, Gautam Buddha Nagar, Uttar Pradesh, India Greater Noida ---------- ----------
4)DR. RAMAN BATRA
Address of Applicant :Noida Institute Of Engineering & Technology, 19, Knowledge Park- II, Institutional Area, Greater Noida-201306, Gautam Buddha Nagar, Uttar Pradesh, India Greater Noida ---------- ----------

(57) Abstract :
Disclosed herein is a system and method for generating displacement maps from image texture. The system (100) comprising a three-dimensional (3D) asset management unit (102) configured to browse, search, download, import, and export from online scan library of high-resolution, consistent physically based rendering (PBR) calibrated assets. The system (100) also comprises a pre-processing unit (104) configured to filter out assets as per the requirement and a dataset (106) configured to store usable data. The system (100) also comprises a graphical processing unit (GPU) (108) configured to provide high computational capability and a conditional generative adversarial network (cGAN) (110) configured to performing image-to-image translation to render displacement map. The system (100) also comprises an edge device (112) configured to take input from the user and an output unit (114) configured to display the displacement map.

No. of Pages : 27 No. of Claims : 10