(19) INDIA

(22) Date of filing of Application :21/12/2021 (43) Publication Date : 23/06/2023

## (54) Title of the invention: LEAKAGE DETECTION SYSTEM FOR PIPELINE

| (51) International classification                               | :H04N0005232000,<br>H04W0004029000,<br>H04N0007180000,<br>G06F0016951000,<br>G06F0003010000 | (71)Name of Applicant:  1)Chitkara Innovation Incubator Foundation Address of Applicant: SCO: 160-161, Sector - 9c, Madhya Marg, Chandigarh- 160009, India. Chandigarh India (72)Name of Inventor: |
|---|---|--|
| (31) Priority Document No                                       | :NA   | 1)LILHORE, Umesh Kumar   |
| (32) Priority Date  | :NA   | 2)SIMAIYA, Sarita  |
| (33) Name of priority country                                   | :NA   | 3)SRIVASTAVA, Vipul  |
| (86) International Application No                               | :NA   |  |
| Filing Date   | :NA   |  |
| (87) International Publication No                               | : NA  |  |
| (61) Patent of Addition to Application<br>Number<br>Filing Date | :NA<br>:NA  |  |
| (62) Divisional to Application Number                           | :NA   |  |
| Filing Date   | :NA   |  |

## (57) Abstract:

The present disclosure discloses a system to detect leakage in a pipeline, the system include one or more image acquisition units 102 positioned inside the pipeline at various location to collect inside images. The system include a control unit 110 configured to process the images using VGG16, and upon detection of leaked-related data in the pipeline, location information of that area is collected through an associated location identifier 108. The detected leakage-related data along with the location information is transmitted to concerned authorities automatically, to take required action. Also, in case of flammable leakage, nearby people are notified to vacant the area.

No. of Pages: 21 No. of Claims: 10