

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202211064765 A

(19) INDIA

(22) Date of filing of Application :11/11/2022

(43) Publication Date : 25/11/2022

(54) Title of the invention : AUTOMATIC NUT FASTENING AND UNFASTENING DEVICE

(51) International classification :A61B0017000000, B25B0021000000, H04N0005225000, E21B0019160000, B60R0011020000

(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)Jaipur National University

Address of Applicant :Jaipur-Agra Bypass, Near New RTO office, Jagatpura, Jaipur-302017, Rajasthan, India. Jaipur -----

Name of Applicant : NA

Address of Applicant : NA

(72)Name of Inventor :

1)Isha Srivastava

Address of Applicant :School of Engineering & Technology, Jaipur National University, Jaipur-Agra Bypass, Near New RTO office, Jagatpura, Jaipur-302017, Rajasthan, India. Jaipur -----

2)Anu Singh

Address of Applicant :School of Engineering & Technology, Jaipur National University, Jaipur-Agra Bypass, Near New RTO office, Jagatpura, Jaipur-302017, Rajasthan, India. Jaipur -----

3)Om Prakash Singh

Address of Applicant :School of Engineering & Technology, Jaipur National University, Jaipur-Agra Bypass, Near New RTO office, Jagatpura, Jaipur-302017, Rajasthan, India. Jaipur -----

4)Prashant Kumar Sharma

Address of Applicant :School of Engineering & Technology, Jaipur National University, Jaipur-Agra Bypass, Near New RTO office, Jagatpura, Jaipur-302017, Rajasthan, India. Jaipur -----

(57) Abstract :

An automatic nut fastening and unfastening device, comprises of a telescopically operated member 1 configured with a ring 2 that is adjusted over a nut to be fastened and unfastened, a microphone 3 where user input commands for adjusting the length according to the operation to be performed for fastening and unfastening of the nut, an artificial intelligence enabled image capturing module 4 works with ultrasonic sensor to detect the diameter of the nut, a motorized iris lid 5 makes the proper grip from the side on the nut in a safe manner, hooks 6 arranged via a motorized hinge to grip the nut from the top, a motorized ball and socket joint 7 is connected between member 1 and ring 2 to rotate the ring 2 relative to the member 1 for fastening and unfastening the nut.

No. of Pages : 12 No. of Claims : 7

Registrar
Jaipur National University