

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202411095746 A

(19) INDIA

(22) Date of filing of Application :04/12/2024

(43) Publication Date : 27/12/2024

(54) Title of the invention : AIRCRAFT WHEEL REPLACEMENT DEVICE

<p>(51) International classification :F16D0065120000, B64C0025320000, B64C0025420000, B60T0001060000, B64F0001220000</p> <p>(86) International Application No :NA Filing Date :NA</p> <p>(87) International Publication No : 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 : <b>1)Chitkara University</b> Address of Applicant :Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Rajpura ----- ----- <b>2)Chitkara Innovation Incubator Foundation</b> Name of Applicant : NA Address of Applicant : NA</p> <p>(72)Name of Inventor : <b>1)Dr. Praveen Kumar Khosla</b> Address of Applicant :Professor and Pro Vice Chancellor, CURIN (Adv Res), Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Rajpura ----- <b>2)Dr. Gurdyal Singh</b> Address of Applicant :Associate Professor, Department of Mechatronics Engineering, Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Rajpura ----- <b>3)Dr. Leema Nelson</b> Address of Applicant :Associate Professor, CURIN (Adv Res), Chitkara University Institute of Engineering and Technology, Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Rajpura ----- -----</p>
---	--

(57) Abstract :

An aircraft wheel replacement device, comprising a base 101 having multiple wheels 102 disposed underneath base 101 to impart mobility to base 101, a three-axes guide rail mechanism 103 installed on base 101, configured with a wheel clamp 104 for clamping onto a wheel of an aircraft for removal from an axle of aircraft and installation of wheel onto axle, a brake disc fixture 105 detachably incorporated with base 101, having multiple arms 106 mounted on an elongated structure attached with base 101, for aligning with and supporting discs of brake assembly of wheel, multiple webs 107 is integrated in each of arms 106, to insert into slots of each of discs, a camera 108 integrated with guide rail mechanism 103, to determine a position of wheel axle, to align clamped wheel along axle and mount onto axle.

No. of Pages : 26 No. of Claims : 7