

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511093627 A

(19) INDIA

(22) Date of filing of Application :29/09/2025

(43) Publication Date : 14/11/2025

(54) Title of the invention : STREET LIGHT POLE WITH INTEGRATED MIST SPRAYER

(51) International classification	:F21W131/103, B05B15/00, B05B17/00, A61L9/14, B01D47/06, B05B9/00, F21V33/00, F21S8/08	(71)Name of Applicant : 1)Chitkara University Address of Applicant :Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Rajpura Punjab India 2)Chitkara Innovation Incubator Foundation
(31) Priority Document No	:NA	(72)Name of Inventor : 1)Dr. Rajneesh Talwar
(32) Priority Date	:NA	2)Dr. Manvinder Sharma
(33) Name of priority country	:NA	3)Dr. Satyajit Anand
(86) International Application No	:	4)Dr. Danvir Mandal
Filing Date	:01/01/1900	
(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	

(57) Abstract :

A street light pole with integrated mist sprayer, comprising a water bottle 101 securely housed within a weather-resistant compartment 102 integrated into the pole, the compartment 102 being secured using a clamp 103, a rainwater harvesting funnel 104, equipped with a fine mesh filter 105, is installed above the bottle 101 to enable automatic refilling during rainfall, a plurality of sensors to continuously monitor environmental and operational parameters around the street light, enabling real-time decision-making for optimized misting performance, a modular mist generation arrangement 107 is integrated on the pole, including a pump 107a and a rotating nozzle spray assembly 107c, operable in high-pressure and low-pressure misting modes, a solar panel 108 mounted atop the pole powers the components, an application on a computing unit, interlinked via Wi-Fi, LoRa, or Bluetooth, enables remote monitoring, control, and diagnostics.

No. of Pages : 24 No. of Claims : 8