

(12) PATENT APPLICATION PUBLICATION

(21) Application No.202511089197 A

(19) INDIA

(22) Date of filing of Application :18/09/2025

(43) Publication Date : 10/10/2025

(54) Title of the invention : SYSTEM AND METHOD FOR SUSTAINING HYDROPONICS UTILIZING HEAT GENERATED AT DATA CENTER

(51) International classification	:H05K0007200000, A01G0007040000, A01G0031020000, A01G0031060000, B05C0005020000	(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 :
(32) Priority Date	:NA	1)Naresh Kumar Trivedi
(33) Name of priority country	:NA	2)Raj Gaurang Tiwari
(86) International Application No	:	
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 system and method for sustaining hydroponics utilizing heat generated at data center, comprises of multiple heat seeking sensors that are embedded in server racks at the data center, a control module includes a heat classifier that is regulated by a predictive AI engine through a RL engine controlling a multi-objective scheduler fed by an anomaly detector, a heat dispensing module for supplying regulated heat generated at data center to a hydroponics complex, the hydroponics complex is communicatively coupled to control module to sense data from multiple plant health detecting sensors includes root-zone thermistors, hyperspectral cameras that are coupled to the anomaly detector for triggering the multi-objective scheduler for balancing computational workload of the server racks, the heat from heat dispensing module is converted to electricity for powering the LEDs based lighting for providing artificial lighting to plants and a method to sustain hydroponics utilizing heat generated at data center.

No. of Pages : 23 No. of Claims : 7