

(12) PATENT APPLICATION PUBLICATION(21) Application No.202431091467 A(19) INDIA(22) Date of filing of Application :24/11/2024(43) Publication Date : 29/11/2024

(54) Title of the invention : "Development and Optimization of a Solar-Powered Chill Preservation Unit for Perishable Goods"

(51) International classification	:H01M0010052500, A23B0007154000, F25B0027000000, A23B0007040000, H01M0010480000	(71)Name of Applicant : 1)SWAMI VIVEKANANDA UNIVERSITY Address of Applicant :Telinipara, Barasat - Barrackpore Rd, Bara Kanthalia, West Bengal – 700121 Barasat -----
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Filing Date	:NA	Address of Applicant : NA
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Filing Date	:NA	-----
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Filing Date	:NA	-----

(57) Abstract :
The Portable Cold Storage Box is an innovative, eco-friendly solution designed to preserve perishable agricultural products such as fruits and vegetables. It features an adjustable temperature control system capable of both cooling and heating to meet the specific needs of different produce. Powered by solar energy, a rechargeable lithium-ion battery, and electricity, the device ensures reliable and continuous operation even in areas with limited access to power. The box is made from durable, insulated materials, maintaining optimal internal temperature conditions while being easily portable. This invention reduces post-harvest losses, extends shelf life, and improves the quality and marketability of produce, offering a sustainable, cost-effective solution for remote and rural regions.

No. of Pages : 11 No. of Claims : 10