

(54) Title of the invention : PCM BASED THERMAL ENERGY STORAGE SYSTEM USING PARABOLIC DISH TYPE SOLAR COLLECTOR

<p>(51) International classification :C09K0005060000, F28D0020000000, G06Q0050060000, F28D0020020000, F24S0010900000</p> <p>(86) International Application No :PCT// Filing Date :01/01/1900</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 : 1)Dr. K. K. RAMASAMY Address of Applicant :PROFESSOR DEPARTMENT OF MECHANICAL ENGINEERING PAAVAI ENGINEERING COLLEGE NAMAKKAL, TAMILNADU 637001 ----- 2)Dr. M. PREMKUMAR 3)Dr. G. MOHAN KUMAR 4)Dr. NEERAJ KUMAR SHUKLA 5)Dr. A P SIVASUBRAMANIAM 6)Dr. P TAMILCHELVAN Name of Applicant : NA Address of Applicant : NA (72)Name of Inventor : 1)Dr. K. K. RAMASAMY Address of Applicant :PROFESSOR DEPARTMENT OF MECHANICAL ENGINEERING PAAVAI ENGINEERING COLLEGE NAMAKKAL, TAMILNADU 637001 ----- 2)Dr. M. PREMKUMAR Address of Applicant :PROFESSOR DEPARTMENT OF MECHANICAL ENGINEERING PAAVAI ENGINEERING COLLEGE NAMAKKAL, TAMILNADU 637001 ----- 3)Dr. G. MOHAN KUMAR Address of Applicant :PRINCIPAL & SENIOR PROFESSOR DEPARTMENT OF MECHANICAL ENGINEERING PARK COLLEGE OF ENGINEERING AND TECHNOLOGY NH 47, AVINASHI - COIMBATORE ROAD, PARK ENGINEERING COLLEGE ROAD, KANIYUR, TAMIL NADU 641659 ----- --- 4)Dr. NEERAJ KUMAR SHUKLA Address of Applicant :ASSOCIATE PROFESSOR DEPARTMENT OF ELECTRICAL ENGINEERING KING KHALID UNIVERSITY ABHA, ASIR 62529, SAUDI ARABIA ----- 5)Dr. A P SIVASUBRAMANIAM Address of Applicant :PROFESSOR DEPARTMENT OF MECHANICAL ENGINEERING PAAVAI ENGINEERING COLLEGE NAMAKKAL, TAMILNADU 637001 ----- 6)Dr. P TAMILCHELVAN Address of Applicant :PROFESSOR DEPARTMENT OF AGRICULTURE ENGINEERING PAAVAI ENGINEERING COLLEGE NAMAKKAL, TAMILNADU 637001 -----</p>
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(57) Abstract :

In solar powered thermal and dissipate heat recuperation frameworks, the amount of energy supply does not usually match with the process demand. To conquer this some type of Thermal Energy Storage(TES) framework is fundamental for the best use of the energy sources. TES is the transitory stockpiling unit, which stores the hotness energy for some time in the future. Among the accessible advances for the warm stockpiling frameworks, thermal energystoringframeworks, utilizing stage change material (PCM) as capacity medium, are appealing because of their benefits for example, high hotness stockpiling limit and isothermal way of behaving during charging and releasing cycles. The degree of solar-based nuclear power in the globe isn't steady; rather, it relies on weather patterns & territory to determine the irregularity between energy supply and request. The idle heat storage system utilizing Phase Change Material (PCM) is a compelling approach to putting away solar powered nuclear power, which meaningfully has an impact on its state at a wide reach of temperature. In the current work, the illustrative dish type solar powered authority is utilized which gathers and reflects heat energy to a copper vessel. Water is coursed to a copper vessel and a consolidated nuclear power stockpiling tank by utilizing a DC siphon. A Solar board with a battery is utilized for the activity of the siphon. The presentation of the consolidated nuclear power stockpiling framework during charging and releasing cycles is widely investigated in this invention.

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