(22) Date of filing of Application :26/07/2023

(21) Application No.202341050328 A

(43) Publication Date: 01/09/2023

(54) Title of the invention: DEVELOPMENT OF ATMOSPHERIC WATER COLLECTOR

:E03B0003280000, B01D0005000000,

(51) International F25B0021020000, H01S0005024000, classification

F25B0021040000

(86) International :PCT// / Application No :01/01/1900 Filing Date

(87) International : NA Publication No (61) Patent of Addition to :NA Application Number :NA Filing Date (62) Divisional to :NA Application Number :NA Filing Date

(71)Name of Applicant:

1)St. Martin's Engineering College

Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally

Name of Applicant: NA Address of Applicant: NA

(72) Name of Inventor:

1)Dr. Dhanaraj savare Nasan Associate professor

Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally

Secunderabad -----

2)Mr.J.Prem Kumar Assistant Professor Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally

Secunderabad --

3)Dr. D. V. Sreekanth Professor & HOD Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally

Secunderabad -----

4)Mr.J.Prem Kumar Assistant Professor

Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally Secunderabad ---

5)Dr. A. ArunaKumari Professor, Mechanical, JNTUH

Address of Applicant :JNTUH, KUKATPALLY, HYDERABAD, TELANGANA

PIN CODE 500085 Secunderabad ----

6)Mrs. K. Hemalatha Assistant Professor

Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally

Secunderabad -----

7) Tekumatla Lokesh Student MECH

Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally

Secunderabad --

Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally

Secunderabad -----

8) Vurugonda Pavan Kumar Student MECH

9)Bokka Hari Prasad Student MECH

Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally

Secunderabad -----

10)Guguloth Subhash Student MECH

Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally

Secunderabad -

11)Koyyada Vishal Goud Student MECH

Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally

Secunderabad -----

12)Samara Sai Roshan Student MECH

Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally

Secunderabad ---

13)Poodari Chandu Goud Student MECH

Address of Applicant :St.Martin's Engineering College, Dhulapally Kompally

Secunderabad -----

(57) Abstract:

This invention concerns An Atmospheric Water Generator (AWG) is a device that extracts water from humid ambient air, i.e. atmosphere, the method employed here is aimed to condense water vapor present in the air by cooling it through Thermo-Electric-Cooler (TEC) devices. These devices popularly known as Peltier coolers also known as thermoelectric coolers operate by the Peltier effect. Means, the device has two sides, and when a DC electric current flows through the device, it brings heat from one side to the other, so that one side gets cooler while the other gets hotter. The hot side is attached to a heat sink so that it remains at ambient temperature and the cool side goes below room temperature by which water particles present in the air will be accumulated over the cold body of TEC device and converted in to water slowly.

No. of Pages: 13 No. of Claims: 6