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Organization	Technical University of Moldova
Patent / patent application title	PHOTOVOLTAIC INSTALLATION „SUNFLOWER”
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Patent / patent application N°	PATENT APPLICATION, NR.2010. 06.03.2020
Description	<p>Instalația fotovoltaică „<i>Floarea soarelu</i>” include turnul fix (1) cu deschizăturile verticale (2), în care sunt instalate rigid elemente de concentrare a razelor solare (3). În interiorul turnului (1) este instalat tubul gofrat (4) umplut cu gaz cu coeficient de dilatare mare la încălzire, capătul de sus al căruia este legat rigid cu axul (6). Pe suprafața cilindrică liberă a axului (6) este executat canalul înclinat (8), în care sunt amplasate bilele (9). Pe suprafața cilindrică interioară a bușei (10) sunt executate locașuri sferice, în care sunt amplasate bilele (9) și este legată cu cilindrul rotitor (13) cu cuplajul unisens (14).</p> <p>The „Sunflower” type photovoltaic installation refers to the photovoltaic solar energy conversion plants, is, to the photovoltaic installations with self-orientation in the southern and azimuthal plane. The photovoltaic installation „Sunflower” includes the fixed tower (1) with the vertical openings (2), in which elements of concentration of the solar rays (3) are rigidly installed. Inside the tower (1) is installed the embossed tube (4) filled with gas with a high coefficient of expansion upon heating, the upper end of which is rigidly connected with the shaft (6). On the free cylindrical surface of the shaft (6) the inclined channel (8) is executed, in which the balls (9) are placed. On the inner cylindrical surface of the bush (10) are made spherical seats, in which the balls (9) are located and is connected to the rotary cylinder (13) with the unisense coupling (14). The rotating cylinder (13) is periodically connected by the arched ball (18) with the fixed tower (1). In the upper part the rotary cylinder (13) is rigidly connected to the support shaft (24), on which is installed the hinged photovoltaic panel (25). The bottom end of the photovoltaic panel (25) in the middle is connected by the bar (26) with the lid (27) rigidly connected to the fixed tower (1).</p>
Domain	Energy and unconventional energy sources