



## **Study of the Technology Development of Harvesting Gravitational Potential Energy for Transportation by Using CASWAT-G**

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Difficult up and down walking against and towards the gravity in a slope land can be overcome by harvesting gravitational potential energy (GPE) of descending person (DP) by using CASWAT-G (Circulating Cable Supported UP-Down Walking Technology by Using Gravitation). In the CASWAT-G, circulating cable (CC) circulates between two bull wheels fixed on the top and the base of a hill. If a DP from the hill top connected to the CC by a body connecting cable (BCC) descends, about 66% of GPE of DP is transferred to CC and this can pull ascending person (AP) up.

Walking up and down by using such technology arrangement is practical and comfortable for daily life. This type of GPE harvester and transportation technology is simple, cheap, eco-friendly and requires minimum effort to walk up and down.

Keywords: circulating cable walking, bull wheel, gravitational potential energy harvesting, transportation technology, cable way walking system, energy harvesting.