

## **A GRAVITY BASED TWO-AXIS SOLAR TRACKING FOR PARABOLOID DISH TYPE SOLAR COOKING SYSTEM**

**PRASHANT RATURI<sup>1</sup>, ADITYA MISHRA<sup>2</sup>, DEEPAK SINGH<sup>3</sup>, RAHUL VERMA<sup>4</sup>,  
SATYAJEET KUMAR<sup>5</sup> & SHATRUGHAN PATI TRIPATHI<sup>6</sup>**

<sup>1</sup>Assistant Professor, Department of Mechanical Engineering, Tula's Institute, Dehradun, Uttarakhand, India

<sup>2,3,4,5,6</sup>U.G. Scholars, Department of Mechanical Engineering, Tula's Institute, Dehradun, Uttarakhand, India

### **ABSTRACT**

In this paper a mechanism for a two-axis sun tracking system based on gravity for a paraboloid dish type solar cooking system is reported in this type of sun tracking system two type of motion is given to paraboloid dish; one is rotation about x-axis and second one is lifting about y-axis. These motions are created with the help of water. The main advantage of this tracking system is that it does not need any electronics devices, motor or gas arrangement. That's why this system is cheaper in cost and construction is easy and rigid. In this paper a brief calculation for flow rate of water used for tracking purpose and temperature and pressure measurement with respect to time is reported.

**KEYWORD:** Two-Axis Solar Tracking System, Chain Sprocket, Discharge Tube, Source and Sink Vessels