SISyPHuI

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Let me tell you of Sisyphus today. Sisyphus was a very cruel Greek King, who was eventually punished for his deeds in a very peculiar way. He was punished to roll a massive boulder on a steep hill, and just as he approached the top, the rock would roll all the way down, and he was forced to start over again. And again.. and again.. till eternity.

Through all this, Sisyphus tirelessly and religiously kept on pushing the rock boulder uphill without stopping. A strange punishment it was… you could imagine the frustration this repetitive and onerous task would cause. No doubt he labored greatly, but towards what ultimate significance? For nothing? One could argue: After all, it was not all that bad. Sisyphus learnt a lot as he toiled hard day by day. He learned of the flora and fauna of the mountain terrains and discovered the joys of learning new things each day. He had grasped a great deal of experience in different ways force could be applied on the rocks to lift them up. He had even mastered the observation of the rolling motion and learnt to appreciate the force of gravity a great deal. But, none of these really made up for the weariness caused due to the endless repetitions of a futile endeavor that he was condemned to.

And disconcerting as it may sound, philosophers and learned men hold that most of the human endeavors are no different. Yes, you heard that right. We are very much like Sisyphus in all that we do, and our endeavors are exactly similar to his: laboring hard to lift up big boulders that are anyway going to roll down eventually. And thus, similar to mathematicians, who call a collection of radius as radii, we are prompted to call this group of tireless laborers as SISyPHuI : a collection of sisyphus.

Yes, it is final: we are all SISyPHuI !

At least, in as much as it allows us to comfortably apply the law of conservation of energy in fluid flows – which is one of the MOST USED and ABUSED equations in the study of fluids.

If you forget that you are a SISyPHuI, you too will join the elite gang of such abusers.

Why so?

Let's decode SISyPHuI and see…

$$P_1 + \frac{1}{2}\rho V_1{}^2 + \rho g h_1 = P_2 + \frac{1}{2}\rho V_2{}^2 + \rho g h_2$$

Remember, the famous Bernoulli's equation written above , which is a statement of conservation of energy, is ONLY applicable when these conditions are met:

S: Flow along a **S**treamline

I : **I**ncompressible

Sy : **S**tead**y**

P: **P**ower &

H: **H**eat transfer

U: **u**navailable

I: **I**nviscid.

I think that this should give you enough reason to admit that we are indeed a species of SISyPHuI. If it is too hurtful to admit so, never mind! At the very least, let's think of it before we write this most used and abused equation of Fluid Mechanics.