Introduction:-

Both Higher secondary and undergraduate students’ reasoning regarding Heat and Thermodynamics often differ from the accepted explanations. Heat and Thermodynamics is an important branch of physics that demands abstract concept and ideas. The teacher tries to impart them to the students through innovative skills. But there are some natural constraints. Traditional lecture method is not sufficient to conceptual understanding. Modern educational technology is the best option to use for students’ conceptual understanding.

A serious deficiency in traditional teaching methods in physics resides that students are not to visualize the details of different processes which students cannot see directly. This indicates that students frequently fail to understand the most basic concepts and phenomena. Therefore they solve the problems only quantitatively. The traditional teaching method is mostly teacher centered while learners have mostly passive role. So active learning is essential for a significant conceptual change to occur.

The new teaching technique gives that active participation of the learner. Such techniques are accepted worldwide that computers can help to teachers to solve the teaching problems with some extent. Computer animations can be the best mode which is useful for improving the thinking power of the students. The computer animations are the important tool for students’ conceptual understanding.

With the revolution in computer accessibility, it is possible for physics educational researchers to identify “What do our students know and how do they respond to what we teach them?” The computer animation model is used to assess the students. While developing the computer animation model, we will keep in mind two guiding principles suggested by Edward Reddish in 1993 that are:

1. Students are not blank states, what they learn depends strongly on what they--- or think they know.

2. Students learn best through active engagement--- but” hand-on” activities are enough; it must be ”brains-on” as well.
A primary goal of research in physics education is physics students gain a better understanding of physics and achieved higher scores in the final examinations. While teaching physics, acquired knowledge physics concepts needed to interpret and predict natural phenomena. In physics, students have the ability to apply the knowledge is more important than recall the knowledge. At present stage, the classroom scenario is not encouraging while teaching Heat and Thermodynamics course. In classroom, the teacher has to explain using traditional teaching method i.e. blackboard and chalk method. This method is time consuming. As the classroom has the large strength of students, it is not possible one to one dialog to student by the teacher. So the teacher is helpless to use the proper tools to explain basic concept of physics. Therefore, there are many misconceptions in physics. Without conceptual understanding, students cannot interpret the equation, graph and diagrammatic representations in thermodynamics. In such conditions, students may lose their confidence in learning the physics. So that the mind of student becomes physics subject is difficult and bored.

The teacher has duty to physics to make students interest in Physics and to develop a scientific culture. The teacher has role to emphasize upon students the role of Physics on social behavior and to increase students understanding to such a level that he can understand various concepts and theories, which unify various branches of Physics. The knowledge gained should be useful to the students in their life.

It is duty of teacher to clear the concepts of the subject in proper way. So that the new teaching methodology using computer has to develop. This methodology supported by animation package.

The students has benefit of this method in following way

1) The students become the active learners because of use of computer animation.
2) The students can see this computer animations number of times.
3) The students become more confident to learn the physics and grasp the basic concepts of the physics.
4) The scientific culture is to develop in the student.
5) It will provide the flexible learning environment.
6) The feedback of student can obtained instantly.
7) It is helpful to minimize the misconceptions in physics.
8) The self learning concept is developed. The teachers has benefit of this method in following way

1) It will helpful for the teachers to enhance the new ideas and develop their own animation package.
2) Due to use of this package, time management is possible for the teacher.
3) The teaching quality will be increase.
4) The interest of students will be developed in the physics.
5) The teacher can make students enable to access wide material.