**WORK ENERGY AND POWER**

1. Kinetic Energy and Work in 1D

* The Concept of Energy and Conservation of Energy
* Kinetic Energy
* Work
* Work Kinetic Energy Theorem
* Power

2. Kinetic Energy and Work in 2D and 3D

* Work and Scalar Product
* Work Done by a Non-constant Force Along an Arbitrary Path
* Work Kinetic Energy Theorem in 3D

3.Conservative and Non-Conservative Forces

* Conservation of Energy
* Conservative and Non-conservative Forces

4.Potential Energy

* Changes in Potential Energy of a System
* Changes in Potential Energy and Zero Point of Potential Energy

5.Conservation of Energy

* Mechanical Energy and Conservation of Mechanical Energy
* Change of Mechanical Energy for Closed System with Internal Non-conservative Forces
* Dissipative Forces: Friction

6.Potential Energy Diagrams

* Spring Force Energy Diagrams