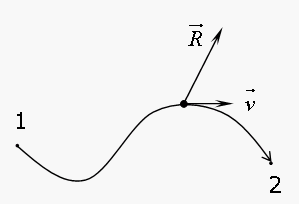
**Kalia Institute SCO 184 (Top Floor) Sector 37 C Chandigarh 9815439805,0172-2628742**

Work, Energy and Power

**Physics**

**Work Energy Theorm for a particle**



Consider a particle of mass `m’, moving under the action of several forces, having a resultant , in an arbitrary locus. Let it undergo a differential displacement during a time interval dt equal to : = . dt . Then applying Newton’s Law in the tangential Direction , we obtain:

. = ( ) . = *m* = *m*. . = *m. v.*

⇒ ( ) . (ds. ) = ( ) . = m v. dv