The wrong equations. Please note the red box below:



The correct equations. Please note the green box below:

$M\_{i}\ddot{u}\_{i}^{t}\left(t\right)+C\_{i}\dot{u}\_{i}^{t}\left(t\right)+K\_{i}u\_{i}^{t}\left(t\right)=F\_{ix}(t)$ (1)

$M\_{i}\ddot{v}\_{i}^{t}\left(t\right)+C\_{i}\dot{v}\_{i}^{t}\left(t\right)+K\_{i}v\_{i}^{t}\left(t\right)=F\_{iy}(t)$ (2)



Explanation: The dynamic balance equation usually consists of three parts. Mass (**M**) multiplied by acceleration, damping (**C**) multiplied by velocity, stiffness (**K**) multiplied by displacement, the result is the unit of force.

So, the third part of equation (1) and (2), stiffness (**K**) cannot be multiplied by acceleration. Stiffness (**K**) multiplied by displacement is the unit of force.