**Velocity Analysis:**

**Acceleration Analysis:**

Y - axis

a

B

A

l

r

X - axis

O

By equation on both sides,

Divide equation 2 by equation 1,

Squaring and adding equations 1 & 2,

**Velocity Analysis:**

From equation (1),

Differentiating on both sides,

From equation (2),

Differentiating on both sides,

Multiplying equation 3 with cos & equation 4 with and then add,

Multiplying equation 3 with sin & equation 4 with and then add,

**Acceleration Analysis:**

By differentiating the equation 3, we get

By differentiating the equation 4, we get

Multiplying equation 5 with cos & equation 6 with and then add,

Multiplying equation 5 with sin & equation 6 with and then add,











