

## **Here are the questions from [6.1 Nonlinear filtering - Quiz]**

1. *There are many reasons why we can't use the normal Kalman Filter when we have non-linear motion and/or measurement models. Mark the false state below.*

Optional Answers:

1. For nonlinear model, it doesn't make sense to express the posterior using just mean and covariance as with the Kalman filter.
2. In the derivation of the Kalman filter we assume that our models are linear. If this does not hold we need to adapt the equations.
3. The Kalman equations only make sense if our models are affine functions of the state, e.g.,  $y = Ax + b$  (A: matrix, x: free variable).

Thank You