

at Saint-cyr-l'école,

12.11.2018,

Consequently to the linear approximation made for the non-linear model I should consider that the error made for that approximation can be dominated by a function such as

$$\Delta(x)(\text{new}) = \Delta(x) - \Delta L \cdot \sin(\Psi^\circ) + O(\Delta(x)) +$$

the_state_noise_delta_x,

$$\Delta(y)(\text{new}) = \Delta(y) + \Delta L \cdot \cos(\Psi^\circ) + O(\Delta(y)) +$$

the_state_noise_delta_y,

$$\Delta(\Psi)(\text{new}) = \Delta(\Psi) + O(\Delta(\Psi)) + \text{the_state_noise_delta_Psi},$$

with respect to $O(x)$, that is the function for domination and also more with the respect to the initial conditions and more on the definition of the non linear function, here I can use the non-linear model approximated with the so-called domination if the error is sufficiently small and also that the extended Kalman filter can converged with the propagation of all the uncertainties associated to the model and also with the matching of the landmarks for observation only; I personally dont use it now but the mathematical framework is on the way to follow and also to respect with the conditions of following the work made here and later on, I suppose I had done the best effort for it.

Here I assume that all the miscellaneous things about the Cybercars and also of such a theory of the mathematical approximation have been fixed and are well posed by all of the team of IMARA and also by all from the CAOR in Paris. I was the corresponding author of such a developpment in the team IMARA and have found this formulation in mathematics for the benefit of all. We dont know so much about the motivation for the Kalman formalism to be executed but in the main that the extended Kalman filtering is properly executed so please make sure that initial conditions and also the equations are good there, thanks so much for the help and best wishes for the followers.

For more informations, please tell me at : edern.ollivier@orange.fr

Best Regards,
EO