Kalman filter and its applications

Access to new resource related to AI and Project Management added to PMWL

Resource provided by Balzhan Khamitova

22 March 2022 – Almaty, Kazakhstan – Access to a new resource has been added to the PM World Library (PMWL) related to Artificial Intelligence (AI) and Project Management. The new resource is titled **"Kalman filter and its applications"**.

The Kalman filter is an efficient recursive filter that estimates the state vector of a dynamical system using a number of incomplete and noisy measurements. Due to its simplicity and efficiency, it can be found in GPS receivers, processors of sensor readings, in the implementation of control systems, etc.

In Project Management, the Kalman filter is used to predict project duration. To implement and use the filter, its algorithm converted into a code with which managers can obtain the necessary values. The Kalman filter forecasting method (KFFM) is monitored by Earned value method (EVM).

The algorithm works in two stages. At the prediction stage, the Kalman filter extrapolates the values of the state variables as well as their uncertainties. At the second stage, according to the measurement data (obtained with some error), the extrapolation result is refined. Due to the stepwise nature of the algorithm, it can track the state of the object in real time (without looking ahead, using only current measurements and information about the previous state and its uncertainty).

To access this new resource, go to the Applications and Hot Topics section of the library at https://pmworldlibrary.net/applications-and-topics/ scroll down to "Current Hot Topics in P/PM", and click on "Artificial Intelligence (AI) and Project Management", scroll down to resource. Must be a registered member and logged-in to access. If not a member, consider the FREE Trial Membership.

This new resource provided through the PMWL university research internship program; to learn more, click here

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For PMWL Post

Kalman Filter - one of the most important and common estimation algorithms. The Kalman Filter produces estimates of hidden variables based on inaccurate and uncertain measurements. Learn more at https://en.wikipedia.org/wiki/Kalman_filter, https://www.intechopen.com/chapters/63164 and https://www.kalmanfilter.net/default.aspx (Khamitova)

Where to post in the library: https://pmworldlibrary.net/ai-and-project-management/