

## **Appliance Application of Sensorless Field-Oriented Motor Control - Washing Machine Example**

Energy efficiency is a hot topic in the appliance industry. The application of variable-speed electric drives is seen as one way to improve overall efficiency. This presentation will use the example of a clothes-washing machine to outline some of the design challenges and potential solutions for the appliance industry. Included in the discussion is some detail on low-cost implementation of sensorless field-oriented control of permanent magnet synchronous motors, and why this is necessary/beneficial for the washing-machine application.