

## **Perspective on Spintronics for Next Generation of Stand-Alone Memory**

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Spintronic-based technologies are considered having high potential for various non-volatile emerging memory applications. This presentation discusses the requirements and prospects of using spin-based devices for high-performance dense stand-alone main memory. Reviewed are key factors driving technology development in that memory segment, and opportunities and challenges for Spintronic solutions to succeed in this fast-paced environment.

**BIO:** Witold Kula is a Fellow at Micron Technology, working as a technical leader and manager in the memory technology development group. He has over 20 years of experience in technology development for semiconductor emerging memories, recording heads, and other thin-film applications. Prior to joining Micron, he held several engineering and management positions in semiconductor and data storage industries, including at TDK/Headway, Cypress Semiconductor, and IBM Corporation. He has 58 granted U.S. patents and 30+ publications in the areas of device technology and materials. Witold received a Ph.D. degree in physics from the Institute of Physics, Polish Academy of Sciences, Warsaw, Poland, in 1992 and a M.S. degree in physics and technology from the Warsaw University of Technology, Warsaw, Poland, in 1986.