Symons, Pete. *Digital Waveform Generation.* New York, NY: Cambridge University Press, 2014, 345 pp. $110.00 (Hardbound).

This concise overview of digital signal generation will introduce you to powerful, flexible and practical digital waveform generation techniques. These techniques, based largely on phase accumulation and phase-amplitude mapping, will enable you to generate sinusoidal and arbitrary waveforms in real-time with independently controlled waveshape, frequency, phase offset and amplitude, and to design and optimise bespoke digital waveform generation systems from scratch.

The book includes a review of key definitions, a brief explanatory introduction to classical analogue waveform generation and its basic conceptual and mathematical foundations, coverage of recursion, DDS, IDFT and dynamic waveshape and spectrum control, and a chapter dedicated to detailed examples of hardware design, accompanied by downloadable Mathcad models created to help you explore 'what if?' design scenarios. It is essential reading for practitioners in the digital signal processing community, and for students who want to understand and apply digital waveform synthesis techniques.

Pete Symons is a professional engineer with over 30 years' experience in the design of digital and analogue signal processing systems, and is Chief Engineer at Avalon Sciences Ltd. He has held numerous positions in industry, including Chief Engineer for the Special Projects Research Group at Thales UK, and Group Leader of the Electronics Research Group at the Atomic Weapons Establishment, UK. He is a Chartered Engineer, and a Fellow of the IET.