March 17, 2020
Low Phase Noise Signal Generation Utilising Oscillators, Resonators & Filters and Atomic Clocks

**Reception and Networking:** 6:30 PM  
**Presentation:** 7:00 PM  
**Speaker:** Jeremy Everand  
**Meetings are free and open to the public.**

**Biography**
Jeremy Everard (M’90) obtained his BSc Eng. from the University of London, King’s College in 1976 and his PhD from the University of Cambridge in 1983. He worked in industry for six years at the GEC Marconi Research Laboratories, M/A-Com and Philips Research Laboratories on Radio and Microwave circuit design. At Philips he ran the Radio Transmitter Project Group.

He then taught RF and Microwave Circuit design, Opto-electronics and Electromagnetism at King’s College London for nine years while leading the Physical Electronics Research Group. He became University of London Reader in Electronics at King’s College London in 1990 and full Professor of Electronics at the University of York in September 1993. At York, he has also taught analogue IC design, filter design, Electromagnetism and RF & microwave circuit design.

In September 2007, he was awarded a five-year research chair in Low Phase Noise Signal Generation sponsored by BAE Systems and the Royal Academy of Engineering.

In the RF/Microwave area his research interests include: The theory and design of low noise oscillators using inductor capacitor (LC), Surface Acoustic Wave (SAW), crystal, dielectric, transmission line, helical and superconducting resonators; flicker noise measurement and reduction in amplifiers and oscillators; high efficiency broadband amplifiers; high Q printed filters with low radiation loss; broadband negative group delay circuits and MMIC implementations.

His research interests in Opto-electronics include: All optical self-routing switches which route data-modulated laser beams according to the destination address encoded within the data signal, ultra-fast 3-wave opto-electronic detectors and mixers for TeraHertz applications and distributed fibre optic temperature sensors.

Most recently, atomic clocks using coherent population trapping and ultra low phase noise microwave flywheel oscillator synthesiser chains with micro Hz resolution have been developed.

He has published papers on: oscillators, amplifiers, resonators and filters, all optical switching, optical components, optical fibre sensors and mm-wave optoelectronic devices and a book on ‘Fundamentals of RF Circuit Design with Low Noise
Oscillators (Wiley) – New edition in progress -. He has filed Patent applications in many of these areas. He is a member of the IET, London and the IEEE (USA).

**Location**

**Skyworks Solutions**
649 Lawrence Drive
Newbury Park, CA 91320
(Not the main building; please use map to arrow that pinpoints building)

**Presented by:** IEEE Buenaventura Microwave Theory and Techniques Society Chapter