

The Lehigh Valley chapter of the IEEE Solid-State Circuits Society presents

**A Review of the 2015 ISSCC (International Solid-State Circuits Conference)**

by Paul Davis, IEEE Fellow.

April 7, 2015, Packard Lab, Lehigh University, Bethlehem, PA

Refreshments: 6:00PM Room 324 (RSVP required)

Talk: 7:00PM Room 416

ISSCC is the premier instructional electronic conference in the world. About 3000 Electrical Engineers attend every year to learn the latest vetted achievements in solid state circuits. Paul Davis has attended 55 straight ISSCC conferences and represented our Lehigh Valley Solid State Circuits Chapter at the Chapter Luncheon (as the only attendee from our chapter). While there, he attended several presentations to get the latest information.

Paul's presentation at the April 7th meeting will summarize some interesting electronic development trends (toward biomedical and self-driving cars) and talk about some achievements, including an IC to take "movies" at 200 million frames per second. (That's >3M times faster than TV, i.e. "faster than a speeding bullet!") Biomedical used to be boring low-speed analog, but new IC's now measure stimulated fluorescent pulse lifetimes in the several nanosecond region to detect bad cells. They are also connecting electronics to the brain to help reduce shaking and seizures from Parkinson's and other diseases. His talk will also cover the Chapter Luncheon and some of the discussion topics about SSCS's future that were raised.

**SPEAKER BIOGRAPHY**

Paul C. Davis received the B.S. Degree from West Virginia University, the M.S. degree from MIT, and the Ph.D. degree from Lehigh University. He worked for Bell Telephone Labs and its successor Lucent Technologies from 1962 to 2001.

Paul was recognized as Bell Labs' expert on architectures and circuit topologies of bipolar ICs, particularly of complex systems such as transceivers. His bipolar GSM cell phone architectures from the late 1980's were the industry standard from 1995 until 2000. He has also made major contributions to clock recovery circuits for fiber optics data transmission, line feed telephone circuits, single-chip telephone IC design, and T1C repeater circuits.

Paul has given nine graduate seminars at major universities in the US and abroad. He has 20 publications and 18 US patents. He is truly a major participant in ISSCC, where he has: given 7 ISSCC papers, one of which received the 1981 "Best Paper Award", served on ISSCC's Technical Program Committee for 11 years, and attended every ISSCC since 1962 – 55 consecutive years and counting!

Paul was named a Bell Labs Distinguished Member of Technical Staff in 1982, and an IEEE Fellow in 2011.