





## **BUENAVENTURA ELECTRON DEVICES / CIRCUITS AND SYSTEMS SOCIETIES CHAPTER**

# Technology Requirements and Initiatives for 5G Radio Front-Ends

## Speaker: Dr. Stephen J. Kovacic Skyworks Solutions, Inc.

### February 28, 2017 at 6:30 PM

#### Location: Skyworks Solutions, Newbury Park, CA

A review of semiconductor and package technology choices for 5G communication systems are considered. The market context for 4G and future 5G systems along with existing RF architectures Front-End UE are reviewed with emphasis SIP on technology. Silicon-on-Insulator, InP HBTs, and other technology candidates are discussed within this context. We conclude that rapid customization at the module level is needed in order to serve different manifestations of 5G systems in the early phases of market deployment and demonstrators.



**Stephen J. Kovacic,** B.Sc. (Waterloo '87), Ph.D. (McMaster '93), LL.B (Ottawa, 2000) has worked with semiconductors and optical devices for 25 years. His technical experiences include work on device physics, model parameter extraction, BiCMOS process flow engineering, and RF circuit design. Dr. Kovacic holds 16 patents in the area of opto-electronics and semiconductors.

From 1997 to 2006, Dr. Kovacic held positions at SiGe Semiconductor where he managed the development of technology and products in the area of RF integrated circuits for wireless applications. In 2006, Dr. Kovacic was called to the Bar of Ontario and Massachusetts, and was subsequently appointed patent and corporate counsel for SiGe Semiconductor until its acquisition by Skyworks Solutions in 2011. Dr. Kovacic is presently Director, Technology for Skyworks Solutions with a home base in Ottawa, Canada and holds an adjunct professor position at Carleton University.



# Location

Skyworks Solutions 649 Lawrence Drive, Newbury Park, CA 91320 Intersection of West Hillcrest Drive and Lawrence Drive (NOT the main building, please use link below to arrow that pinpoints building) http://maps.google.com/maps?q=34.187542,-118.930994&num=1&t=h&vpsrc=0&ie=UTF8&z=18&iwloc=A

## Directions

#### From Los Angeles

Highway 101 North Take exit 47A for Rancho Conejo Blvd Use the left lane to turn right onto Rancho Conejo Blvd Turn left onto W Hillcrest Dr. Destination will be on the right

#### From Ventura

Highway 101 South Take exit 47B for Wendy Dr. toward Newbury Park Turn right onto N Wendy Drive Continue onto Camino Dos Rios Turn right onto W Hillcrest Drive Destination will be on the left.

