

# The School of Electrical and Computer Engineering Distinguished Seminar Series 2016

The Distinguished Seminar Series of the School of Electrical and Computer Engineering (ECE) presents the work of internationally recognized researchers. This seminar series is intended to provide an open platform for the faculty and students, to have a dialog with leading researchers in various fields of ECE, and to build-up a dynamic and vibrant culture of research and academic exchange in the ECE department. All seminars are free and open to the public.



## Next Generation Engineering Education

12: 30 p.m. - 1:30 p.m., Monday,  
April 4, ATRC 102

**Dr. Robert G. Olsen** - Professor at the School of Electrical Engineering and Computer Science at Washington State University

Olsen received his B.A. degree in electrical engineering from Rutgers University, New Brunswick, NJ in 1968 and the M.S. and Ph.D. degrees in electrical engineering from the University of Colorado, Boulder, CO in 1970 and 1974 respectively. For the latter two degrees, his area of specialization was electromagnetic theory. He was the associate dean for undergraduate programs of the Voiland College of Engineering and Architecture from 2003-20013.

His research interests span all aspects of electromagnetics issues in power transmission and has resulted in approximately 85 publications in refereed journals and approximately 150 conference publications/presentations. He is also one of the authors of the AC Transmission Line Reference Book – 200 kV and Above which is published by the Electric Power Research Institute (EPRI) and the author of the recently published two volume book, High Voltage Overhead Transmission Line Electromagnetics.

### Seminar abstract

There are a number of important issues to be faced when contemplating undergraduate engineering education for the next generation. Retention is a major concern given the historically low retention rate in engineering programs due to the relative lack of control over the first two years of the students' education. This issue will be addressed in addition to the more recent problem of generally reduced student readiness for the engineering curriculum. The discussion will include challenges faced in both recruiting and retaining underrepresented minorities and women. Engineering programs are evolving and are expected to change to emphasize learning more than teaching and to include more "experience enhanced education." Infused within all segments of the seminar will be the roles played by NSF funding and assessment to enhance programs. If undergraduate programs are to grow, the resources (human, facility and financial) must be made available either by increased efficiency or additions to existing resources. An issue of great importance, given their many responsibilities, is that faculty workload related to the undergraduate program must be set at a 'reasonable' level.

**Food provided at 12 P.M. - 12:30 P.M.**  
**Food reservation can be made at the ES202 front desk one week prior to each seminar.**



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