



INCOSE Chesapeake Chapter
International Council on Systems Engineering

cordially invites you to our

Monthly Dinner and Lecture

Wednesday, 20 February 2013 (6:00 – 8:00 pm)

Flexibility in Engineering Design

with Examples from Power Systems

Richard de Neufville, Professor of Engineering Systems, Engineering Systems Division, MIT

**Location: Applied Physics Laboratory, Johns Hopkins University
11100 Johns Hopkins Rd Laurel MD 20723 (Main Entrance – Lobby 1)**

Presentation: Flexibility in design is an idea whose time has come. Experience indicates that the use of flexible design for the design of major infrastructure systems can lead to significant, double digit percent improvements in expected value. Computational and methodological advances now enable us to investigate the performance of designs under multiple scenarios, and to identify those that can perform best over the range of possible eventualities. This talk describes the approach combining screening models, simulation and subsequently optimization. The presentation will illustrate flexibility in design with a range of example applications to major systems, in particular power systems faced with major changes in fuel prices, the source of energy production, and in the demand for electric power.



Speaker: Dr. de Neufville is an engineer and system designer. His research and teaching now focus on inserting flexibility into the design of technological systems. His book *Flexibility in Engineering Design* (MIT Press, co-authored with Prof. Scholtes of Cambridge University) appeared in 2011. Dr. de Neufville is known for innovations in engineering and education. He is the author of 6 texts on systems engineering. He has worked on projects “on all continents except Antarctica” and holds several international academic appointments. Numerous prizes, such as the Sizer Award for the Most Significant Contribution to MIT Education, have recognized this work. He has his PhD from MIT and an honorary doctorate from the Delft University of Technology.

Delicious friendly networking buffet dinner: Chicken breast with mushroom marsala sauce; Wild rice; Steamed Broccoli, served with garden salad, dressing, rolls and butter, dessert, including a small Fruit Plate, coffee, iced tea

Dinner Cost: Guests: **\$25**; INCOSE members: **\$20** if payment is received by February 15th, 2013, **\$25** afterwards. To pay by credit card or PayPal, visit our registration webpage for details: <http://www.incose-cc.org/registration/>



Door Prize for this month
Flexibility in Engineering Design
(Engineering Systems)

Presentation ONLY: FREE at 7pm in Parsons Auditorium



Live Entertainment: Provided by the APL Jazz group for those arriving early for the lecture in the Parsons Auditorium

Corporate Sponsor: We wish to thank the Applied Physics Laboratory for supporting the systems engineering profession through use of their facilities

Our Evening's Agenda

5:45 – 6:00 pm	Arrival and Socializing
6:00 – 6:45 pm	Dinner
6:45 – 6:50 pm	Member Introductions
6:50 – 6:55 pm	Chapter Business Items
7:00 – 8:00 pm	Lecture

Directions: JHU APL, 11100 Johns Hopkins Road, Laurel, Maryland 20723, Phone (443) 778-5000

See APL's Visitor Guide for more: <http://www.jhuapl.edu/newscenter/visitor/default.asp>

From Washington DC and Capital Beltway (I-495):

Take I-95 North toward Baltimore, 10 miles to Columbia exit (MD Route 32 West),

Go 2.5 miles to the Washington DC exit (US Route 29 South).

Go 1.5 miles south and take Johns Hopkins Road exit (bear right at the top of the hill).

Or from the Capital Beltway (I-495):

Take US Route 29 North (Colesville Road) 10 miles and follow signs for the turn onto Johns Hopkins Road.

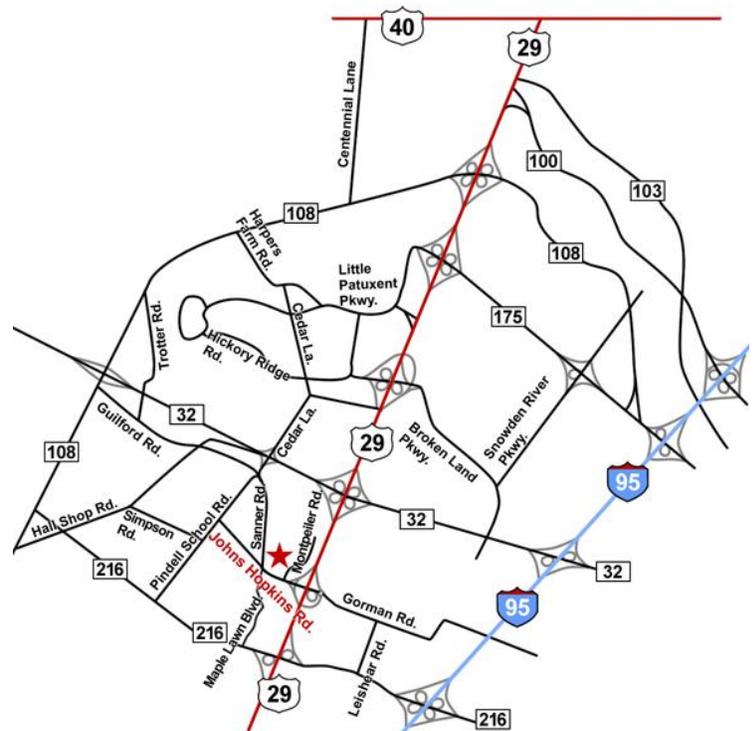
From Baltimore and Baltimore Beltway (I-695):

Take I-95 South toward Washington DC.

Go 13 miles and take Columbia exit (MD Route 32 West).

Go 2.5 miles and take Washington DC exit (US Route 29 South).

Go 1.5 miles south and take Johns Hopkins Road exit (bear right at the top of the hill).



Once you're on Johns Hopkins Road:

APL is a half-mile west of US Route 29 on your right side. Go past the first entrance, continuing past the pond and take the next right turn onto a tree-lined lane. Park in the visitor's lot on your left side. Enter at the main entrance marked **Building 1** (flagpoles and traffic circle in front).

Dinner is held in the Howard County Room #3 located at the end of the cafeteria hallway to the right of the entryway just before the Guard's desk.