



**IEEE Canada**



**KITCHENER-WATERLOO SECTION**



**IEEE Aerospace & Electronic Systems Society (AESS)  
AES Chapter Distinguished Lecture**

### **Navigation Systems**

Special Guest Speaker: Dr. Myron Kayton  
IEEE AES Distinguished Lecturer

Date: May 15, 2007 (Tuesday)

Time: 15:30-16:30 am, EST

Location: Six Sigma Conference Room, Raytheon Canada Ltd.

Invited by Dr. Jian Wang

**Registration is required via e-mail to [Jian\\_Wang@raytheon.com](mailto:Jian_Wang@raytheon.com) before May 11, 2007.**

Major topics: NAVIGATION SYSTEMS

- Absolute navigation versus dead reckoning
- Guidance versus navigation
- Characteristics of navigation systems for aircraft, automobiles, ships, spacecraft
- Importance of timing in radio systems
- Global Navigation Satellite Systems
- Description of dead-reckoning systems
- Cost and accuracy
- Future

References

## Presenters

**Myron Kayton:** Dr. Kayton has more than 50 years of experience designing and testing avionic, navigation, communication, and computer-automation systems. As a Consulting Engineer for Kayton Engineering Company, he has served a hundred clients. He worked on several automotive electronic systems, automated process systems, upper-stage spacecraft, a satellite interceptor, commercial communication systems, numerous aircraft avionic systems, and a dozen land navigators.

From 1968-81 at TRW, Dr. Kayton served as Chief Engineer for Spacelab avionics, Head of System Engineering for Space Shuttle avionics, and Project Engineer for the electronics of the Inertial Upper Stage and a nuclear power plant, among many assignments.

From 1965-68, Dr. Kayton served as Deputy Manager for Lunar Module Guidance and Control at NASA's Johnson Space Center. From 1960-65, he was Section Head at Litton's Guidance and Control Division, where he designed and analyzed some of the earliest multi-sensor navigation systems.

Dr. Kayton is a registered electrical and mechanical engineer. He is a Life Fellow of the Institute of Electrical and Electronic Engineers (IEEE), was an elected member of the corporate Board of Directors, and served two terms as President of its Aerospace and Electronic Systems Society. He taught simulation methods, multi-sensor navigation systems, and land navigation at UCLA and published more than 80 papers and articles. He is the author of the standard reference text, AVIONICS NAVIGATION SYSTEMS (first and second editions) and of NAVIGATION: LAND, SEA, AIR AND SPACE. He is the recipient of several honors including IEEE's Millennium Medal, IEEE-AES's Carlton Award for the best technical paper of 1988, and ION's Kershner Award for Navigation.

Dr. Kayton received the Ph.D. in Instrumentation from M.I.T. in 1960, the M.S. from Harvard University with a concentration in electrical engineering, and the B.S. in mechanical engineering from The Cooper Union. He is listed in WHO'S WHO IN ENGINEERING, WHO'S WHO IN AMERICA, and AMERICAN MEN AND WOMEN OF SCIENCE. He is an instrument-rated pilot and holds an FAA Project Raincheck certificate in Air Traffic Control. He is interested in history, languages, and tennis.

Registration required via e-mail to [Jian\\_Wang@raytheon.com](mailto:Jian_Wang@raytheon.com) by May 11.

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