2012 CT Medal of Technology Awarded to UConn Engineering Professor Yaakov Bar-Shalom for Pioneering Work in Radar & Sonar Surveillance

Hartford, May 22 — Dr. Yaakov Bar-Shalom of the University of Connecticut will receive the 2012 Connecticut Medal of Technology for his pioneering advancements in radar and sonar technology, and his significant contributions to strengthening the nation’s defense and air transport systems as well as Connecticut’s role in sonar research and development. Bar-Shalom is the University of Connecticut Board of Trustees Distinguished Professor of Electrical and Computer Engineering and the Marianne E. Klewin Endowed Professor in Engineering.

Catherine Smith, Commissioner of the Department of Economic and Community Development, will present the award at the annual meeting and dinner of the Connecticut Academy of Science and Engineering (CASE) on Thursday, May 31, 2012 at the Rome Ballroom at the University of Connecticut in Storrs.

Professor Bar-Shalom specializes in multiple target-tracking and in developing algorithms that are used in radar and sonar target tracking and surveillance systems across the globe. He is known worldwide as the chief architect of probability-based methods for estimating the paths of moving objects. His work has aided national defense because it permits early detection of approaching hostile targets, making a timely counterattack possible. The sensors based on his algorithms also have enhanced air transport safety since airports have numerous objects that can confuse conventional tracking algorithms.

The leading academic researcher in his field, a prolific author, and widely-known industry consultant, Bar-Shalom has trained many practicing engineers in the field and is skilled at bridging the gap between theory and practice. His work has led to significant work for Connecticut employees performing sonar R&D, testing and evaluation, and product transition to the U.S. Navy.

At age 19, Bar-Shalom and his family emigrated from Romania to Israel where he earned his bachelor’s and master’s degrees in electrical engineering. He earned his Ph.D. in electrical engineering at Princeton University and went on to become a Senior Research Engineer with Systems Control, Inc. in Palo Alto, California before joining the University of Connecticut faculty in 1976. He also has served as a visiting professor at Stanford University and at the Naval Postgraduate School in California.

He currently directs UConn’s Estimation & Signal Processing Laboratory, which develops advanced computing algorithms for information processing in the areas of defense against ballistic missiles, tracking the motion of stealthy targets (from underwater to space), civil and military air traffic, tracking a large number of moving surface targets, and biomedical applications.

Bar-Shalom is the seventh recipient of the Connecticut Medal of Technology, the state’s highest honor for technological achievement in fields crucial to Connecticut’s economic competitiveness. Modeled after the National Medal of Technology, this award is made by the Office of Financial and Academic Affairs for Higher Education, assisted by CASE, in alternate years with the Connecticut Medal of Science.

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