2010 Award Recipient

Bob Whyte ’60

Bob Whyte, you have epitomized the WPI motto of theory and practice by using your skills to solve complex problems and make a significant impact in the world.

Starting out at the Picatinny Arsenal as an aeroballistics engineer in the early 1960s, you recognized the shortcomings of the process used to predict and evaluate ammunition performance. Back then, engineers worked by hand, sorting through massive quantities of data and attempting to work out intricate equations on paper. But the process wasn't an exact science and engineers didn't always produce the right answer.

You knew that there had to be more accurate and effective ways to develop and test weapons. Early on, you saw an innovative application for a fledging science and harnessed the power of the computer to create an aerodynamic coefficient predictive code.

In the 1970s, while employed by General Electric's Armament Department as an ammunition project engineer, you initiated the development of a comprehensive ammunition design and system simulation computer model called PRODAS. But the lack of high quality aerodynamic data inhibited its progress. So you adapted and modified NASA-derived, non-linear methodology to compute highly accurate aerodynamic data from free flight tests. Data from prior years could quickly be reanalyzed by this powerful methodology, which became the U.S. government's standard and remains so today. In recognition of this achievement, General Electric named you their 1973 Engineer of the Year.

In 1987, you and business partner Burdett K. Stearns, an expert in structural dynamics, founded Arrow Tech to support the U.S. defense industry. As weaponry became more sophisticated, you understood the growing need for efficient, reliable simulation methods. Throughout your career, you have shared your expertise through countless technical publications and course offerings. You expanded Arrow Tech's reach by providing commercial software tools to professional engineers. Today, the PRODAS software you developed is an industry standard, and is recognized as the most advanced analytical tool kit in the world for the design and analysis of ammunition and missiles.

Robert Whyte, we take pride in your on-target innovations, and we are honored to present you with the Robert H. Goddard Award for Outstanding Professional Achievement.