

## **NEETEA Chronology of Appreciation and Gratitude by Wolter J. Fabrycky**

I wish to begin my acceptance of the ASEE NEETE Award by reference to my beginning at Wichita State University. In a classroom there in 1955, I was introduced to the subject by the Prentice Hall textbook entitled Engineering Economy (EE) by Holger G. Thuesen. Nothing special about that at the time.

But, after three years as an Instructor at the University of Arkansas, I joined Oklahoma State University to pursue my Ph.D. Happily, I was mentored by and assisted Professor Thuesen and quickly fell in love with EE under this great mentor. Unknowingly at the time, that was good preparation for him to ask me to take over his textbook for subsequent editions, with provision to involve his son Gerry.

Upon receiving my doctorate in 1962, I taught undergraduate EE as well as other courses at OSU in classical classroom manner, including some EE graduate teaching off-campus. At this point, Engineering Economy had begun to take root as primary in my engineering education foundation.

While preparing the third edition of Thuesen's EE, I became alarmed that the ANSI factor standardization revision was ignoring the functional in favor of the mnemonic. So, I made a strong case to Art Lesser and then through Gerry Fleischer, who wisely circulated both systems. By the early 1970's the functional standard became dominant for both teaching and publishing. I have the archive that begins with my letter to Lesser in March 1965 and ends with Chairman Don Newnan writing "eliminate mnemonic entirely" on the final page proofs!

Then at Virginia Tech in 1967, I boldly proposed to Dean Willis Worcester that EE be made a required course for all engineering sophomores. My elaborate plan was accepted and implemented for 1968-69. During the next six quarters, I taught more than 2,000 students in General Lecture / Recitation (GL/R) mode, supervising 8 recitation instructors. Scary, because we were under close scrutiny for teaching quality by the engineering department heads council.

Then, pleased with the desirable interdepartmental interaction from EE, Dean Worcester asked me to chair a Technical Interest Group on Systems Engineering at the graduate level starting in 1970. The synergy turned out to be significant, so much so that I began research and writing about Engineering Economy at the system level (EE@SL). It was from this humble beginning that SE has now gone worldwide in both domain centric and systems centric forms.

My teaching was reduced during my 12 full-time administrative years of 1970-82. It involved some off-campus graduate teaching and research. I provided guidance and occasionally taught under the GL/R model. It was during this administrative time that I introduced the economic aspects of "shelter for Hokie Junior and Hokie Senior", with responses that actually engaged some parents! Returning to my IE professorship in 1982 brought more EE teaching under the

GL/R model and even greater interaction across departmental lines, particularly through the Systems Engineering graduate program.

Valuable calibration during my return to full-time teaching came from a gathering of engineering economists at Mountain Lake, Virginia. This was for the NSF sponsored Research Planning Conference on Engineering Economics that I proposed and then conducted in 1984. That valuable event connected me, post-administratively, with academic and industry colleagues having a keen interest in EE. I learned so much from you, my colleagues, during and then after this conference.

The PC became required for all engineering students as I was returning to full-time teaching. I found it to be a major enabler for unique interactive ‘creative exercises. Other technology supplemented my teaching of graduate courses off-campus, beginning with Telewriter and later via Educational TV. And, teaching the one-credit EE review class to seniors for two decades in preparation for the PE Exam, and sometimes by ETV, was very satisfying.

I was often assigned honors and graduate classes in EE, the latter sections off-campus. It is here that my teaching seemed best, with “creative exercises” utilized to supplement ordinary textbook problems and exercises. And, it was mainly honors students that took on the development of PC courseware to support EE exercises. I owe much gratitude to students for my learning, particularly honors students.

My non-classical teaching since 1999 has centered on providing SE program development services for academic, professional, and honor societies through Academic Applications International, Inc. Guest lecturing by invitation is now my only real classroom connection. The interdisciplinary of Systems Engineering with EE integrated, has become my academic passion. That has inspired my continuing publications and presentations over recent decades.

I continue to update the AAI website with my presented and published materials, and with contributions from AAI associates. The uploaded courseware has been offered gratis for more than three decades, but is now in need of updating. Also, with Prentice Hall permission, the textbook *Life-Cycle Cost and Economic Analysis* is now available gratis through AAI for individual and group learning. And please download “Engineering Economy at the System Level” by going to [www.a2i2.com](http://www.a2i2.com).

My plan is to continue web-based academic learning worldwide through AAI for as long as I am able to facilitate effective learning, with minimum travel. In closing, I invite one and all to view and obtain from the AAI web site a plethora of Engineering Economy and Systems Engineering learning materials at low or no cost. That includes some applicable academic administrative materials.

Thank you one and all for having inspired me, without being named herein, over six decades!