Invited Seminar
Towards a New Generation of Programming Languages
Henry Ledgard, Professor
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The University Of Toledo, Toledo, Ohio

Date: September 8, 2014       Time: 11:00 am – 11:50 am       Place: SSOE Seminar Room NI-1027

Abstract:
We explore exciting new principle for programming language design. This is called the “Separation Principle”. It is derived from a language and language environment called VisiSoft produced by Prediction Systems in New Jersey.

The use of the separation principle allows one to use a graphical approach to modular design, reduces program complexity and considerably reduces scope-rules. We also make use of an “English-like” syntax as well as the idea of named “rules”, both concepts also inspired by VisiSoft. These ideas suggest a new direction for the programming language field.

We also discuss the limitations of conventional languages, the difficulty with Object-Oriented Programming, and a fundamental problem in the field that many software ideas are based on thoughtful opinions that are not necessarily supported by data.

Speaker Biography

Dr. Henry F. Ledgard received his B.A. from Tufts University in 1964 and his Ph.D. from the Massachusetts Institute of Technology in 1969. He spent a year at the University of Oxford as a post-doctoral fellow. He was a faculty member at Johns Hopkins University, and subsequently was on the faculty at the University of Massachusetts/Amherst. In 1977, he became a member of the design team to create the new programming language ADA. From 1979 he conducted his own consulting and writing practice. In 1989 he joined the faculty at the University of Toledo.

Among Dr. Ledgard’s books are:

Ada: A First Introduction
Programming Language Landscape (by Michael Marcotty and Henry Ledgard)
Professional Software Volume II: Programming Practice (with John Tauer)
The Little Book of Object-Oriented Programming (based on a work with Michael Marcotty)

Two of his primary goals are to help people learn and to inspire quality work.