INFORMATIK-KOLLOQUIUM AB Programmiersprachen und Übersetzer Institut für Computersprachen



## Einladung

zum Informatik-Kolloquium des AB Programmiersprachen und Übersetzer am **Donnerstag, den 7. Juli 2016, um 11:00 Uhr s.t.** Hörsaal EI5 Hochenegg, Elektrotechnik, Gußhausstraße 25-29 (Altbau), 2. Stock

Es spricht

## Prof. Dr. Jerzy Nawrocki

Poznan University of Technology, Poznan, Poland

über

## Predicting Worst-Case Behaviour of Programs by Means of Attribute Functions

In some applications, so-called hard-real-time systems, it is very important to predict worst-case behaviour of programs, i.e. worst-case execution time or worst-case memory consumption. In general, there are two approaches to the problem: empirical and analytical. Unfortunately, none of the existing solutions seems strong enough to cope with unbounded iterations, recursion, dynamic storage allocation, and implementation selection for abstract data types. During the presentation a solution to the mentioned problems will be presented which is based on attribute functions. The notion of attribute function will be introduced, and some examples concerning implementation selection for dynamic storage allocation will be presented. It seems that attribute function primitives could be a valuable extension to modern hard-real-time languages.

**Biographie:** The main area of interest of Jerzy Nawrocki is Software Engineering, but in the past he was involved in projects concerning compiler construction and real-time systems. Currently he is a dean of the Faculty of Computing, Poznan University of Technology, but he has been also with University of Nijmegen, the Netherlands (1986-87), and Dublin City University (1996). He is a member of IFIP Working Group 2.4 (since 1996), vice-chair of IFIP Technical Committee 2 on Software (since 2011), and member of IFIP Board (since 2013). (http://www.cs.put.poznan.pl/jnawrocki/)

Zu diesem Vortrag lädt der Arbeitsbereich für Programmiersprachen und Übersetzer am Institut für Computersprachen herzlich ein.

Tee: 10:30 Uhr in der Bibliothek E185.1, Argentinierstr. 8, 4. Stock (Mitte).