

# WORKSHOP

## ADA IN A COMPUTER SCIENCE CURRICULUM

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### OVERVIEW

This workshop will introduce attendees to Ada, with emphasis on Ada 9X. Constructs that lend themselves to use in a computer science curriculum will be stressed. The material covered will include object-oriented programming and real-time and parallel programming. The material will be presented from a software-engineering perspective. It will include approximately 2 hours of lecture/discussion, followed by a 1 hour hands-on programming lab where attendees will get a change to try out the GNAT Ada compiler, an Ada compiler developed by New York University under the auspices of the Ada 9X project office. Information on how to obtain this compiler as freeware will be presented, along with information on how to obtain freeware tools and courseware. Information will also be presented on how to qualify and apply for BAA (Broad Area Announcements) research grants. These grants, sponsored by the Ada Joint Project Office and the Ada 9X project office to facilitate the development and implementation of Ada curriculums.

### WORKSHOP OUTLINE

- Introduction and History of Ada
- Rationale of Ada 9X
- Overview of the language
  - Syntactic constructs
  - Semantic constructs
- Software Engineering and Ada
- Packages and Libraries
  - Child Packages
- Object-Oriented programming
- Tasking/Parallel processing in Ada 83 and Ada 9X
- Exceptions
- Reuse
- Generics
- Ada 9X annexes
- Hands-on lab
- GNAT Compiler
  - How to obtain the GNAT compiler
  - How to obtain Ada courseware, artifacts and tools
- BAA process (how to get information, how to apply)