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VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

Computer Science Seminar Series, 2008

National Capital Region

Software Reuse Research and Projects at COPPE/UFRJ

Speaker: Prof. Cláudia Maria Lima Werner
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Friday, September 5, 2008, 2:00 - 3:00PM, NVC 325

Abstract: In this talk, we will present the research performed by the Software Reuse Group at COPPE/UFRJ over the last decade, describing our main projects (i.e.,Odyssey and Brechó Projects). Odyssey Environment is a Component-Based Software Development Environment under development at COPPE/UFRJ since 1997. It supports activities involved in modeling, construction, reuse and group interaction by providing an integrated set of tools and a repository of reusable components. In Odyssey, components are developed according to a specific Domain Engineering (DE) process, and are made available in "packages" that include diagrams, source code, textual descriptions, and binary code, among other artifacts. These artifacts are further reused in all phases of an application development, according to an Application Engineering process (AE). Several tools are provided, including support to workflow management, model transformation and consistency checking, version and change control, and reverse engineering. Brechó is a Software Components and Services Library under development since 2005. It catalogs components to be further searched and retrieved. The components are cataloged respecting a level-based structure, and some library features are: (i) flexible component concept and customized packaging; (ii) flexible publishing and documenting techniques; (iii) components' version and evolution control; (iv) flexible and efficient mechanisms for components search and retrieval; (v) management of producers, consumers and reuse information; (vi) management of licenses, contracts and pricing of components and services; and (vii) mechanisms for publishing, negotiation and execution of remote services.

Biography: Cláudia Maria Lima Werner is an Associate Professor in the Computer Science Department at COPPE/UFRJ (the Graduate School of Engineering of the Federal University of Rio de Janeiro, Brazil). Her areas of interest are Software Reuse, Software Development Environments, and Software Engineering Education. She received her DSc. in Computer Science in 1992 from COPPE/UFRJ. She has over 60 technical papers published in international conferences and journals and 80 in Latin American conferences and journals. She is a member of the program committee for ICSR, ICSE Educational Track, and several Latin-American conferences and workshops. She is a member of IEEE and SBC (the Brazilian Society of Computer Science). She was the head of the Computer Science Department in 2001 and the Academic Affairs Adjoint Director of COPPE/UFRJ from 2003-2007. She is currently the Coordinator of the Software Engineering area at COPPE/UFRJ.