USC-CSE Overview

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USC-CSE Affiliates (26)

- **Commercial Industry (10)**
  - Bellcore, EDS, Hughes, Lucent, Motorola,
    Network Programs, Rational, Sun, TI, Xerox

- **Aerospace Industry (9)**
  - Allied Signal, Boeing/Rockwell, GDE Systems,
    Litton, Lockheed Martin, Northrop Grumman,
    Raytheon/E-Systems, SAIC, TRW

- **Government (3)**
  - FAA, USAF Rome Lab, US Army Research Labs

- **FFRDC's and Consortia (4)**
  - JDA, MCC, SEI, SPC
Affiliates Via Mergers

- Sanders, RCA Aero, GE Aero, GD-FW, Loral, Northrop Grumman -- Lockheed Martin
- Ford Aero, LTV, IBM-FSD, Unisys DSD -- Loral
- Westinghouse Aero, Logicon -- Northrop Grumman
- E-Systems, Hughes, TI -- Raytheon
- Teledyne Aero, PRC, TASC -- Litton
- Rockwell, MDAC -- Boeing
- Bellcore -- SAIC
- BDM -- TRW

1997 Highlights

- WinWin Spiral Model proof tests successful
  - Completion of 6 digital library applications
  - Architecting of 15 more digital library applications
- WinWin Spiral Model integration with Rational Objectory process
  - Spiral, anchor points
  - Royce book, Unified Software Management
- MCC developing industrial-grade version of WinWin tool
- COCOMO II.1998 in calibration to 160 data points
  - Improved accuracy
  - Positive contribution of CMM process maturity
  - COCOMO II book forthcoming
Software Engineering Ph.D. Students

WinWin

Ming June Lee (Ph.D., 1996) - Formal Modeling of the Win Win System
Yunan Bao (Ph.D., 1996) - Tool Integration Language and Support
Hok In - Automated Conflict Detection and Option Generation
June Sup Lee - Architectures for Groupware Systems

Architecture

Ahmed Abdi-Allah (Ph.D., 1996) - Heterogeneous Architecture Style Composition
Cormac Geoghegan - Architecture Style Composition Framework
Alex Tzeng - Integration of Multiple Architectural Views
Sunwei Qiu - Architecture Attribute Analysis Tool Integration

Cost and Process Modeling

Ray McDevitt (Ph.D., 1995 - 2002) - System Dynamics Model of Inspection Effects
Brad Clark (Ph.D., 1997) - Effect of Process Maturity on Software Cost
Sunika Devamani-Chalani - Software Cost-Schedule-Quality Tradeoff Model
Chris Abou - COTS Integration Cost Model
Allen Nikora (Ph.D., 1998) - Software Reliability Modeling