

Funded Research

1. "Scholarship for Service: Education and Workforce Development of Software Engineers with the Capabilities to Build Secure Cyber-Systems" Primary Investigator, Funded by the National Science Foundation (NSF), **\$3,948,339**, Jan 2016 to Dec 2021.
2. "Multicore/Multiprocessor Directed R&D" Funded by Lockheed Martin Corporation, Missile and Fire Control, **\$50,536**, Sept 2013 to Dec 2013
3. "Developing a Prototype Electronic Flight Bag for Trajectory Base Operations" in response to FAA Task Titled Human-in-the loop Evaluation of Selected NextGen TBO Scenarios with Identification of Issues and Recommendations for Cockpit System Enhancements, FAA project 09-02". Funded by Honeywell and FAA, **\$500,000**, Jan 2011 to Oct 2012.
4. "A Curriculum-wide Software Development Case Study". Co-Primary Investigator, Funded by the National Science Foundation (NSF), **\$153,000**, Jan 2010 to Dec 2012.
5. "Model-Based Software Assurance with the SAE Architecture Analysis & Design Language (AADL) for NASA's Juno Mission". Co-Primary Investigator, Funded by the National Aeronautics Space Administration (NASA), **\$72,000**, May 2009 to Dec 2009.
6. "Developing Performance Criteria and Assessment Rubrics for the Computer Engineering and Software Engineering Programs" Co-Primary Investigator, Funded by the office of the Provost, Embry-Riddle Aeronautical University. **\$5,000**, July 2008 to June 2009.
7. "Building a Framework for Software Property Validation" Primary Investigator, Funded by the office of the Provost, Embry-Riddle Aeronautical University. **\$10,000**, July 2008 to June 2009.

Publications: Journals, Book Chapters, and Lecture Notes

1. **Salamah, S.**, Towhidnejad, M., and Hilburn, T., "Digital Home: A Case Study Approach to Teaching Software Engineering Concepts," in *Overcoming Challenges in Software Engineering Education: Delivering Non-Technical Knowledge and Skills*, (L. Yu, ed.), IGI Global, to appear 2014.
2. Gates, A., Villa, E., and **Salamah, S.**, "Developing Communities of Practice to Prepare Software Engineers with Effective Team Skills," in *Overcoming Challenges in Software Engineering Education: Delivering Non-Technical Knowledge and Skills*, (L. Yu, ed.), IGI Global, to appear 2014.
3. Hilburn, T., **Salamah, S.**, and Towhidnejad, M., "A life-Cycle Case Study", Special Issue on Case Studies and Methodologies of the *Journal of Systemics, Cybernetics, and Informatics (JSCI)*.
4. **Salamah, S.**, Gates, A., and Kreinovich, V., "Validated Templates for Specification of Complex LTL Specifications" in the *Journal of Systems and Software*, Volume 85 Issue 8, August, 2012
5. **Salamah, S.**, Gates, A., Roach, S., and Engsko, M., "Towards Support for Software Model Checking: Improving the Efficiency of Formal Specifications", *Journal of Advances in Software Engineering*, Volume 2011 (2011), Article ID 869182.

6. **Salamah, S.**, "Validation of Software Property Specification Using the TV Tool", *Journal of Communication and Computer*, Volume 8, Number 4, April 2011.
7. Towhidnejad, M., **Salamah, S.**, and Hilburn, T., "Introducing Case Study-Based Teaching in Computing Curricula" (pre-conference workshop description), *Journal of Computing Sciences in Colleges*, Volume 26 Issue 6, June 2011.
8. **Salamah, S.**, Gates, A., Kreinovich, V., and Roach, S., "Using Patterns and Composite Propositions to Automate the Generation of LTL Specifications", *Lecture Notes In Computer Science* (LNCS) 4762, Springer-Verlag, pp. 533-542, 2007.
9. **Salamah, S.**, Gates, A., Roach, S., and Mondragon, O., "Verifying Pattern Generated LTL Formulas: A Case Study", *Lecture Notes in Computer Science* (LNCS) Volume 3639/2005, Springer-Verlag, pp. 200-220, 2005.

Publications: Conference Proceedings

1. Acosta, J, and **Salamah, S.** "An Analysis Platform for Execution-based Model Generation" Proceedings of the IEEE High Assurance Systems Engineering Conference 2016.
2. Ochoa, O., and **Salamah, S.**, "An Approach to Enhance Students' Competency in Software Verification Technique", To Appear in the Proceedings of the 45th IEEE-CS Annual Frontiers in Education (FIE) Conference.
3. **Salamah, S.**, Ochoa, O., and Jacquez, Y., "Using Pairwise Testing to Verify Automatically Generated Formal Specifications" In the Proceedings of the 16th IEEE International Symposium on High Assurance Systems Engineering, Daytona Beach, FL, January, 2015
4. Towhidnejad, M., Hilburn, T., and **Salamah, S.**, "Transforming Engineering and Science Education Through Active Learning" In the Proceedings of the 44th IEEE-CS Annual Frontiers in Education (FIE) Conference, Madrid, Spain, October, 2014
5. Towhidnejad, M., Hilburn, T. B., & **Salamah, S.** "Using the Case Method to Transform Engineering Education". QScience Proceedings: Vol. 2014, World Congress on Engineering Education.
6. **Salamah, S.**, Ochoa, O., and Engsko, M., "Consistency Checks of System Properties Using LTL and Büchi Automata". In the proceedings of the *24th International Conference on Software Engineering and Knowledge Engineering, San Francisco, CA, July, 2012*
7. Stansbury, R., Barott, W., and **Salamah, S.**, "Using Mini-Projects to Foster Student Collaboration in Multi-Disciplinary Capstone Design Course" In the proceedings of the *2012 ASEE Conference and Exposition, San Antonio, TX, June, 2012.*
8. Stansbury, R.S., Towhidnejad, M., **Salamah, S.**, and Barott, W. C., "Developing an Air/Ground Robots for Disaster Response as a Project for a Senior Capstone Design Course", AIAA Infotech@Aerospace 2012, Garden Grove, CA, June 21, 2012.
9. Fletcher, J., Fountain, C., Kerley, C., Torres, J., Barott, W., **Salamah, S.**, and Stansbury, R., "Immersive Audio-Visual System for an Unmanned Robotic Vehicle in a Senior Design

Project" in the proceedings of the *2012 IEEE SouthEastCon Conference*, Orlando, FL, March, 2012.

10. **Salamah, S.**, Towhidnejad, M., and Hilburn, T., "Developing Case Modules for Teaching Software engineering and Computer Science Concepts", in the *Proceedings of the 41st IEEE Frontiers in Educations Conference (FIE)*, Rapid City, SD, October, 2011.
11. Hilburn, T., Towhidnejad, M., and **Salamah, S.**, "Read Before You Write", in the *Proceedings of the 24th IEEE conference on Software Engineering Education and Training (CSEET)*, Honolulu, HI, May, 2011.
12. **Salamah, S.**, Towhidnejad, M., and Hilburn, T., "Reporting on the Use of Software Development Case Study in computing Curricula, in the *Proceedings of the 118th Annual Conference for the American Society for Engineering Education (ASEE)*, Vancouver, Canada, June, 2011.
13. **Salamah, S.**, Ochoa, O., Gates, A., "A Comparative Study of a Tool-Based Approach to Teaching Formal Specifications", in the *Proceedings of the 39th Annual Frontiers in Education (FIE) Conference*, Washington, DC, October, 2010.
14. **Salamah, S.**, Del Buono, M., Baily, E., Printy, S., Ferris, D., and Christian, L., "Enhancing Property Specification Tools with Validation Techniques", in the *Proceedings of the 21st International Conference on Software Engineering and Knowledge Engineering (SEKE)*, Boston, MA, July, 2009.
15. **Salamah, S.**, Roach, S., Ochoa, O., Medina, V., and Gates, A., "Experiment to Evaluate an Approach to Teaching Formal Specifications Using Model Checking", in the *Proceedings of the 116th Annual Conference for the American Society for Engineering Education (ASEE)*, Austin, TX, June, 2009.
16. **Salamah S.**, "From Linear to Branching Time in Software Property Specifications", in the *Proceedings of the 13th GAMM - IMACS International Symposium on Scientific Computing, Computer Arithmetic, and Verified Numerical Computations*, El Paso, TX, September, 2008.

17. **Salamah, S.**, Gallegos, I., Ochoa, O., "A Novel Approach for Software Property Validation", in the *Proceedings of the International Conference for Software Engineering Theory and Practice (SETP)*, Orlando, FL, July, 2008.
18. Gallegos, I., Ochoa, O., Gates, A., Roach, S., **Salamah, S.**, and Vela, C., "A Property Specification Tool for Generating Formal Specifications: Prospec 2.0", in the *Proceedings of the Software Engineering and Knowledge Engineering (SEKE)*, San Francisco, CA, July, 2008.
19. Garcia, L., Roach, S., and **Salamah, S.**, "PROTEF: Automatic Verification of Pattern-Based LTL Templates", in the *Proceedings of the Software Engineering and Knowledge Engineering (SEKE)*, San Francisco, California, San Francisco, CA, July, 2008.
20. **Salamah, S.**, and Gates, A., "Using Specification Patterns to Teach Black-Box Testing", in the *Proceedings of the 115th Annual Conference for the American Society for Engineering Education (ASEE)*, Pittsburgh, PA, June 2008.
21. **Salamah, S.**, and Gates, A., "A Technique for Using Model Checkers to Teach Formal Specifications", in the *Proceedings of the 21st IEEE-CS International Conference on Software Engineering Education and Training (CSEET)*, Charleston, SC, April, 2008.
22. Hilburn, T., Towhidnejad, M., and **Salamah, S.**, "The Digital-Home Case Study Material", in the *Proceedings of the 21st IEEE-CS International Conference on Software Engineering Education and Training (CSEET)*, Charleston, SC, April, 2008.
23. **Salamah, S.**, Gates, A., and Roach, S., "Improving Pattern-Based LTL Formulas For Model Checking", in the *Proceedings of the 5th IEEE International Conference on Information Technology (ITNG)*, Las Vegas, NV, April, 2008.
24. **Salamah, S.**, Gates, A., Kreinovich, V., and Roach, S., "Verification of Automatically Generated Pattern-Based LTL Specifications", in the *Proceedings of the 10th IEEE High Assurance Systems Engineering (HASE)*, Dallas, TX, November, 2007.
25. **Salamah, S.**, Kreinovich, K., and Gates, A., "Generating Linear Temporal Logic Formulas for Pattern-Based Specifications", in the *Proceedings of the 19th International Conference on Software Engineering and Knowledge Engineering (SEKE)*, Boston, MA, July, 2007.

Publications: Technical Reports

1. Ward, N, Novick, D, and **Salamah S.**, "The UTEP Corpus of Iraqi Arabic," Technical Report, UTEP-CS-06-02.
2. Mondragon, O, and **Salamah, S.**, "Supporting Documentation for the 2003 SPS-Prospec Experiment," Technical Report, UTEP-CS-05-06.
3. **Salamah, S.** and Gates, A, "Supporting Documentation for the SPS-Prospec Case Study," Technical Report, UTEP-CS-05-14.

Workshops/Panels Delivered

1. Secure Cyber-Operations, Why You Should Care. 2014 Annual SACNAS (Society for Advancement of Chicanos and Native Americans in Science) Conference
2. Faculty Workshop Organized: "Integrating Professional Practice into Engineering Curriculum", Atlanta, GA, June 26-28, 2013.

3. Faculty Workshop Organized: "Teaching with a Software Life-Cycle Case Study", Embry Riddle Aeronautical University, Daytona Beach, FL, June 13-15, 2011
4. Faculty Workshop Organized: "Introducing Case Study-Based Teaching in Computing Curricula", Western New England College, Springfield, MA, April 15, 2011

Data Collections Generated

Nigel Ward, David Novick, Salamah Salamah, and Yaffa Al Bayyari, "The UTEP Corpus of Iraqi Arabic", audio data in 6 CDs. Special Collections, University of Texas at El Paso Library. 2006.

Professional Service

Aug 2007-2009	American Society for Engineering Education– Vice President, Software Engineering Constituent Committee
Aug 2008-Present	International Association of Science and Technology for Development – Member of Technical Committee on Software Engineering
Aug 2008-Present	Journal for System and Software Engineering – Reviewer
Aug 2008-Present	Frontiers in Education Conference – Reviewer
Aug 2007-Present	Assessment and Accreditation Department and College Committee (Software Engineering Program Lead) – Embry-Riddle Aeronautical University
Aug 2007-Present	CSE/EE Merger Committee, Assessment Committee – College, Embry-Riddle Aeronautical University
Aug 2007-Present	Honor Student Committee, Planning Committee, Retention Committee – University, Embry-Riddle Aeronautical University

Professional Societies

Aug 2007-Present	Member of IEEE Computer Society
Apr 2011-Present	Member of the Educational Activity Board of the IEEE Computer Society's (Chair of the Competition Committee)
Aug 2007-Present	Member of the American Society for Engineering Education
Aug 2008-Present	Member of ACM

Professional Workshops/Seminars Attended

Oct 2014	IBM CyberSecurity Academic Event, Atlanta, GA, April, 2014
Nov 2010	Software Engineering Educators Symposium (SEES), Santa Fe, NM
Jan 2010	ABET Faculty Workshop, Orlando, FL
Feb 2009	Course Makeover (Two months workshop), Center for Teaching and Learning (CETL), Embry-Riddle Aeronautical University, Daytona Beach, FL
Apr 2008	Academy for Software Engineering Education and Training (ASEE&T), Charleston, SC, April 2008.
Jul 2007	Software Engineering Institute's Workshop on Personal Software Process (PSP) and Team Software Process (TSP), Chicago, IL, July 23 - 28, 2007

Honors/Awards

May 2011	Nominated for Embry Riddle Aeronautical University's Best Teaching award
May 2007	Most Outstanding Graduate in Computer Science at UTEP