

**CURRICULUM VITAE  
OF  
Peter J. Clarke  
School of Computing and Information Sciences  
College of Engineering and Computing**

**August 2017**

**EDUCATION**

<b><u>Degree</u></b>	<b><u>Institution</u></b>	<b><u>Field</u></b>	<b><u>Date</u></b>
Ph.D.	Clemson University	Computer Science	2003
M.S.	Binghamton University, SUNY	Computer Science	1996
*Adv. Dip.	University of the West Indies Cave Hill Campus	Computer Science	1993
B.Sc.	University of the West Indies Cave Hill Campus	Computer Science and Mathematics	1987

\*Equivalent to the first year of an MS degree.

**FULL-TIME ACADEMIC EXPERIENCE**

<b><u>Institution</u></b>	<b><u>Rank</u></b>	<b><u>Field</u></b>	<b><u>Dates</u></b>
School of Computing and Information Sciences (SCIS) Florida International University (FIU)	Associate Professor	Computer Science	08/09 - present
SCIS, FIU	Assistant Professor	Computer Science	08/03 – 07/09
Barbados Community College	Lecturer	Mathematics and Computer Science	09/87 -07/99

**PART-TIME ACADEMIC EXPERIENCE**

<b><u>Institution</u></b>	<b><u>Rank</u></b>	<b><u>Field</u></b>	<b><u>Dates</u></b>
Department of Computer Science, Clemson University	Graduate Assistant	Computer Science	08/99 -06/03
Department of Computer Science, University of the West Indies , Cave Hill	Adjunct Lecturer	Computer Science	08/96 -05/99

## EMPLOYMENT RECORD AT FIU

### Rank

### Dates

Associate Professor

08/09 - present

Assistant Professor

08/03 – 7/09

## PUBLICATIONS IN DISCIPLINE

All publications listed are peer reviewed unless indicated by “NPR”.

### **Books**

N/A

### **Articles (Accepted on Full Paper Peer-Review)**

\* Indicates that lead authors are my advisees.

1. Ellen L. Brown, Nicole Ruggiano, Lisa Roberts, Vagelis Hristidis, and Peter J. Clarke. Smartphone-based Health Technologies for Dementia Care: Opportunities, Challenges, and Current Practices. Submitted to Journal of Applied Gerontology. Submitted on 02/24/2017. Requested major revisions. Accepted on (06/16/17)
2. Peter J. Clarke, Debra Davis, Raymond Chang-lau and Tariq M. King. Impact of Using Tools in an Undergraduate Software Testing Course Supported by WReSTT. Submitted to the ACM Transactions on Computing Education (TOCE). Accepted December 2016.
3. Andrew A. Allen, Fabio M. Costa and Peter J. Clarke. *Personal and Ubiquitous Computing*. A user-centric approach to dynamic adaptation of reusable communication services. Springer. 20(2) 209 – 227. April, 2016. DOI 10.1007/s00779-016-0904-1. (Impact Factor 1.518)
4. \*Karl Morris, Mark Allison, Fabio M Costa, Jinpeng Wei and Peter J Clarke. *Journal of Information and Software Technology*. An Adaptive Middleware Design for Domain-Specific Virtual Machines. 62, C (June 2015), 21-41. DOI=10.1016/j.infsof.2015.02.003. (Impact factor 1.692)
5. \*Mark Allison, Karl A. Morris, Fabio M. Costa, and Peter J. Clarke. *Journal of Systems and Software*. Synthesizing Interpreted Domain-Specific Models to Manage Smart Microgrids. 96(0):172 –193, October, 2014. (Impact factor 1.352)
6. Peter J. Clarke, Debra L. Davis, Tariq M. King, Jairo Pava and Edward L. Jones. *ACM Transactions on Computing Education (ToCE)*. Integrating Testing into Software Engineering Courses Supported by a Collaborative Learning Environment. November 2014, 14(3) Article 18.
7. Peter J. Clarke, James F. Power, Djuradj Babich and Tariq M. King. *Journal of Software Testing, Verification and Reliability (STVR)*. A Testing Strategy for Abstract Classes. May 2012, 22(3) pages 147-169. doi: 10.1002/stvr.429. (Impact factor 1.1)
8. \*Yali Wu, Andrew A. Allen, Frank Hernandez, Robert B. France, and Peter J. Clarke. *Journal of Software Practice and Experience (SP&E)*. A Domain-Specific Modeling Approach to Realizing User-Centric Communication. March 2012, 42(3) pages 357-390. doi: 10.1002/spe.1081 (Impact factor 0.652)
9. Barrett R. Bryant, Jeff Gray, Marjan Mernik, Peter J. Clarke, Robert B. France, Gabor

- Karsai. *Computer Science and Information Systems Journal*. Challenges and Directions in Formalizing the Semantics of Modeling Languages. 8(2), pages 225-253. (2011) (Impact factor 0.640)
10. \*Jose A. Morales, Peter J. Clarke, Yi Deng. *Journal in Computer Virology, Special Issue of EICAR 2008*, Springer-Verlag. Identification of File Infecting Viruses through Detection of Self-Reference Replication. May 2010, 6(2) pages 161-180.
  11. Junhua Ding, Peter J. Clarke, Gonzalo Argote-Garcia and Xudong He. *Journal of Information and Software Technology (IST)*, Elsevier Inc. A Methodology for Evaluating Test Coverage Criteria of High Level Petri Nets. Volume 51 Issue 11, November, 2009. (Impact factor 1.82)
  12. Peter J. Clarke, Djuradj Babich, Tariq M. King, and B. M. Golam Kibria. *Journal of Systems and Software*, Elsevier Inc. Analyzing Clusters of Class Characteristics in OO Applications. December 2008, 81(12) pages 2269-2286. (Impact factor 1.241)
  13. Yi Deng, S. Masoud Sadjadi, Peter J. Clarke, Vagelis Hristidis, Raju Rangaswami and Yingbo Wang. *Journal of Systems and Software, Special Issue*, Elsevier Inc. CVM - A Communication Virtual Machine. October 2008, 81(10) pages 1640 – 1662. Invited paper – the conference paper was among the best five papers during COMPSAC 2006. (Impact factor 1.241)
  14. \*Jose A. Morales, Peter J. Clarke, Yi Deng and B. M. Golam Kibria. *Journal in Computer Virology*, Springer-Verlag. Characterization of Virus Replication. December, 2007, 4(3) pages 221-234.
  15. \*Tariq M. King, Alain E. Ramirez, Rodolfo Cruz, Peter J. Clarke. *Journal of Computers*, Academy Publisher. An Integrated Self-Testing Framework for Autonomic Computing Systems. November 2007, 2(9) pages 37-49. Invited paper.
  16. \*Jose A. Morales, Peter J. Clarke, B.M. Golam Kibria and Yi Deng. *Journal in Computer Virology special edition on Mobile Malware*. Testing and Evaluating Virus Detectors for Handheld Devices. Springer-Verlag. November 2006, 2(2) pages 135-147.
  17. Junhua Ding, Peter J. Clarke, Dianxiang Xu, Xudong He and Yi Deng. *Multi-Agent and Grid Systems: An International Journal. Special issue on Agent-oriented Software Development Methodologies*, IOS Press. A Formal Model-Based Approach for Developing an Interoperable Mobile Agent System. July, 2006, 2(4), pages 401-412.
  18. Nicholas A. Kraft, Errol L. Lloyd, Brian A. Malloy and Peter J. Clarke. *Journal of Systems and Software*, Elsevier Inc. The Implementation of an Extensible System for Comparison and Visualization of Class Ordering Methodologies. August 2006, 79(8) pages 1092-1109 (Impact factor 1.241).
  19. Peter J. Clarke, Brian A. Malloy, Junhua Ding and Djuradj Babich. *International Journal of Software Engineering and Knowledge Engineering*, World Scientific Publishing. A Tool to Automatically Map Implementation-Based Testing Techniques to Classes. August 2006, 16(4) pages 585 – 614 (Impact factor 0.413).
  20. Peter J. Clarke and Brian A. Malloy. *Journal of Object Technology*, ETH Zürich. A Taxonomy of OO Classes to Support the Mapping of Testing Techniques to a Class. July/August 2005, 4(5) pages 95-116.
  21. Peter Clarke and Brian Malloy. *International Journal of Computers and Information Systems*, ACIS. Identifying Implementation-Based Testing Techniques for Classes. 3(3) September 2002.

## Proceedings (Accepted on Full Paper Peer-Review)

\* Indicates that lead authors are my advisees.

1. Peter J. Clarke, Debra L. Davis, Raymond Chang-Lau, James Kiper, Yujian Fu, and Gursimran S. Walia. *124th ASEE Annual Conference & Exposition - Computers in Education Division*. Using WReSTT Cyberlearning Environment in the Classroom. ASEE, June 2017. Paper ID: 19953.  
<https://www.asee.org/public/conferences/78/papers/19953/view>
2. Peter J. Clarke, Debra Davis, Edward Jones and James Kiper. Workshop on Using Learning and Engagement Strategies in Software Engineering and Programming Courses (LESSEP17-3). Submitted to the ACM Richard Tapia Celebration of Diversity in Computing. Accepted on 03/28/17
3. Peter J. Clarke, Debra L Davis, Gursimran Walia and Hakam Alomari. *In 2017 ASEE Annual Conference Program (ASEE 2017)*. W472L: Workshop on Using Learning and Engagement Strategies in Software Engineering and Programming Courses (LESSEP17-2). June 28th, page 231 (abstract only).  
[https://www.asee.org/public/conferences/78/registration/view\\_session?session\\_id=7972](https://www.asee.org/public/conferences/78/registration/view_session?session_id=7972)
4. Fabio M. Costa, Karl A. Morris, Fabio Kon and Peter J. Clarke. Model-Driven Domain-Specific Middleware. Accepted to the 37th IEEE International Conference on Distributed Computing (ICDCS 2017) (03/1317).
5. Yujian Fu and Peter J. Clarke. The *123rd ASEE Annual Conference & Exposition - Computing and Information Technologies (CIT)*. Gamification based Cyber Enabled Learning Environment of Software Testing. ASEE, June 2016. Paper ID: 15359.  
<https://www.asee.org/public/conferences/64/papers/15359/view>
6. Yujian Fu, Peter J. Clarke and Nelson Barnes. The *123rd ASEE Annual Conference & Exposition - Computing and Information Technologies (CIT)*. Integrating Software Testing into CC Curriculum Using WReSTT-CyLE. ASEE, June 2016. Paper Id: 15885.  
<https://www.asee.org/public/conferences/64/papers/15885/view>
7. Mark Allison, Xudong He, Peter J. Clarke. Proceedings of the 2015 International Conference on Soft Computing and Software Engineering (SCSE'15), *Procedia Computer Science*. A Generic Model of Execution for Synthesizing Interpreted Domain-Specific Models. Volume 62, March 2015, Pages 495-504.
8. Karl A. Morris, Peter J. Clarke, Xudong He, Fabio M. Costa and Mark Allison. *In the Proceeding of the 14<sup>th</sup> IEEE International Symposium on High Assurance Systems Engineering (HASE)*. A Method for Validating Intent Model Behavior in DSVMs. January 8-10, 2015, pages 247-254.
9. Peter J. Clarke, Debra L. Davis, Raymond Chang-lau, and Tariq M. King. *In Proceedings of the 121<sup>st</sup> American Society for Engineering Education (ASEE) - Software Engineering Constituent Committee Division Track (SWECC) 2014*. Observations on Student Use of Tools in an Undergraduate Testing Class. June, 2014. Paper id: 10123, 16 pages.
10. Norman Pestaina, Tiana Solis, and Peter J. Clarke. *In Proceedings of the 121<sup>st</sup> American Society for Engineering Education (ASEE) - Computing and Information Technology Division Track (CIT) 2014*. Assessing BS-CS Student Outcomes Using Senior Project. June, 2014. Paper id: 10108, 15 pages.
11. Peter J. Clarke, Yujian Fu, James Kiper, and Gursimran Walia. *In Proceedings of the 45th ACM Technical Symposium on Computer Science Education (SIGCSE 2014)*. Workshop on Integrating Software Testing into Programming Courses (WISTPC 2014). March 5<sup>th</sup>, page 739 (abstract only).

12. Adalberto R. Sampaio Jr, Fabio Costa and Peter Clarke. *In Proceedings of Model@run.time 2013 Workshop in conjunction with ACM, IEEE Models 2013 Conference*. A Model-driven Approach to Develop and Manage Cyber-Physical Systems. September 2013, pages 64-75.
13. \*Karl A. Morris, Jinpeng Wei, Peter J. Clarke and Fabio Costa. *In the Proceeding of the 14<sup>th</sup> IEEE International Symposium on High Assurance Systems Engineering (HASE)*. Towards a Middleware to Support the Service Delivery Validation in i-DSML Execution Engines. October 25-27, 2012, pages 82-89.
14. \*Mark Allison, Karl A. Morris, Zhenyu Yang, Peter J. Clarke and Fabio Costa. *In the Proceeding of the 14<sup>th</sup> IEEE International Symposium on High Assurance Systems Engineering (HASE 2012)*. Towards Reliable Smart Microgrid Behavior Using Runtime Model Synthesis. October 25-27, 2012, pages 185-192.
15. Gustavo C. M. Sousa, Fabio M. Costa, Peter J. Clarke and Andrew A. Allen. In proceeding of 7th workshop on *Model@run.time 2012 Workshop (MRT 2012) in conjunction with ACM, IEEE Models 2012 Conference*. Model-Driven Development of DSML Execution Engines. ACM, October, 2012, pages 10-15.
16. Keith O Dulaigh, James F. Power and Peter J. Clarke. *In the 5th International Workshop on Exception Handling (WEH 12) – An ICSE Workshop*. Measurement of exception-handling code: some empirical studies. IEEE, June, 2012, pages 55-61.
17. Peter J. Clarke, Jairo Pava, Debra Davis, and Tariq M. King. *In the Proceedings of the 43rd ACM Technical Symposium on Computer Science Education (SIGCSE 2012)*. Using WReSTT in SE Courses: An Empirical Study. ACM, February, 2012, pages 307-312. (Acceptance rate 34%).
18. \*Frank Hernandez and Peter J. Clarke. *In Proceedings of the compilation of the co-located workshops on DSM'11 (SPLASH '11 Workshops)*. Towards the Integration of Policies in DSMLs. ACM, New York, NY, USA, October, 2011, pages 53-56.
19. Martina Seidl and Peter J. Clarke. Software Modelling Education. *In the Proceeding of the Educator's Symposium 2011 co-located at the IEEE/ACM 14<sup>th</sup> International Conference on MODELS*. Electronic Communications of the EASST, Volume 52. September, 2011 (Invited Paper)
20. Tariq M. King, Andrew A. Allen, Rodolfo Cruz and Peter J. Clarke. *In Proceeding of the 8th International Conference on Autonomic and Trusted Computing (ATC 2011)*. Safe Runtime Validation of Behavioral Adaptations in Autonomic Software. Springer Lecture Notes in Computer Science, Vol. 6906 September 2-4, 2011, pages 31-46. (**Best Paper Award**)
21. Reng Zeng, Yu Huang, Su Liu, Peter J. Clarke, Xudong He, Gwendolyn W. van der Linden and Jon L. Ebert. *In Proceedings of the 23rd International Conference on Software Engineering and Knowledge Engineering (SEKE 2011)*. SC-xScript: An Embedded Script Language for Scientific Computation in Embedded Systems. Knowledge Systems Institute. July 7-9, 2011, pages 308-314. (Acceptance rate 33%).
22. \*Mark Allison, Andrew A. Allen, Zhenyu Yang and Peter J. Clarke. *In Proceedings of the Twenty-Third International Conference on Software Engineering and Knowledge Engineering (SEKE 2011)*. A Software Engineering Approach to User-Driven Control of the Microgrid. Knowledge Systems Institute. July 7-9, 2011, pages 59-64. (**Best Paper Award–3<sup>rd</sup> place**). (Acceptance rate 33%).
23. \*Yali Wu, Frank Hernandez, Robert B. France, Peter J. Clarke. *In Proceedings of the 35th IEEE Computer Software and Applications Conference (COMPSAC 2011)*. A DSML for Coordinating User-Centric Communication Services. IEEE Computer Society, July 18-21

pages 93-102. (Acceptance rate 20%).

24. Tariq M. King, Andrew A. Allen, Yali Wu, Peter J. Clarke and Alain E. Ramirez. *In Proceedings of the 8th IEEE International Conference on the Engineering of Autonomic and Autonomous Systems (EASE 2011)*. A Comparative Case Study on the Engineering of Self-Testable Autonomic Software. IEEE Computer Society, April 27-29, 2011, pages 59-68.
25. Martina Seidl and Peter J. Clarke. *In Models in Software Engineering, Workshops and Symposia at MODELS 2010, Reports and Revised Selected Papers*. Editors: Juergen Dingel and Arnor Solberg. LNCS. Software Modeling in Education: The 6th Educators' Symposium at MODELS 2010. Volume 6627/2010, September 2010, pages 35-39.
26. Peter J. Clarke, Jairo Pava, Yali Wu, and Tariq M. King. *In Proceedings of the 42nd ACM Technical Symposium on Computer Science Education (SIGCSE 2011)*. Collaborative Web-Based Learning of Testing Tools in SE Courses. ACM, New York, NY, USA, March 9 – 12, 2011, pages 147-152. (Acceptance rate 34%).
27. \*Djuradj Babich, Peter J. Clarke, James F. Power and B. M. Golam Kibria. *In Proceedings of the 2011 ACM Symposium on Applied Computing (SAC '11)*, ACM. Using a class abstraction technique to predict faults in OO classes: a case study through six releases of the Eclipse JDT. ACM, New York, NY, USA, March 21 – 24, 2011, pages 1419-1424. (Acceptance rate 29%).
28. \*Yali Wu, Frank Hernandez, Francisco Ortega, Peter J. Clarke and Robert B. France. *In the Proceedings of the 10<sup>th</sup> Workshop on Domain-Specific Modeling (DSM'10) in conjunction with SPLASH 2010*. Measuring the Effort for Creating and Using Domain-Specific Models. Oct. 17-18, 2010, pages 85-90.
29. Peter J. Clarke, Andrew A. Allen, Tariq M. King, Edward L. Jones, and Prathiba Natesan. *In Proceedings of the ACM International Conference Companion on Object Oriented Programming Systems Languages and Applications Companion (OOPSLA 2010)*, ACM. Using a Web-Based Repository to Integrate Testing Tools into Programming Courses. October 17 -21, 2010, pages 193-200.
30. \*Andrew A. Allen, Yali Wu, Tariq M. King, Peter J. Clarke, and Yi Deng. *The 2009 Conference of the Center For Advanced Studies on Collaborative Research (IBM CASCON 2009)*, IBM Corp. An Autonomic Framework for User-Centric Communication Services. Nov. 2-5, 2009, pages 203-215. (Acceptance rate 25%).
31. Peter J. Clarke, Yali Wu, Andrew A. Allen, and Tariq M. King. *Education Symposium 2009 co-located at the IEEE/ACM 12<sup>th</sup> International Conference on MODELS*. Experiences of Teaching Model-Driven Engineering in a Software Design Course. Oct. 6, 2009. <http://www.cs.colostate.edu/models09/edusymp.html>
32. \*Yingbo Wang, Yali Wu, Andrew A. Allen, Barbara Espinoza, Peter J. Clarke and Yi Deng. *The 33<sup>th</sup> Annual International Computer Software and Applications Conference (COMPSAC 2009)*, IEEE Computer Society. Towards the Operational Semantics of User-Centric Communication Models. July 20-24, 2009, pages 254-262. (Acceptance rate 20%) (**Best Student Paper Award**)
33. Masoud Milani, S. Masoud Sadjadi, Raju Rangaswami, Peter J. Clarke and Tao Li. The 5th Fifth Richard Tapia Celebration of Diversity in Computing Conference: Intellect, Initiatives, Insight, and Innovations, ACM. *Research Experiences for Undergraduates: Autonomic Computing Research at FIU*. April 1-4, 2009, pages 93-97.
34. \*Yali Wu, Andrew A. Allen, Frank Hernandez, Yingbo Wang and Peter J. Clarke. *The 12<sup>th</sup> IASTED International Conference on Software Engineering and Applications (SEA 2008)*, ACTA Press. A User-Centric Communication Middleware for CVM. November 16-18, 2008,

pages 210-215. (Acceptance rate 44%)

35. \*Yingbo Wang, Peter J. Clarke, Yali Wu, Andrew A. Allen, and Yi Deng. *Models@runtime Workshop in conjunction with the ACM, IEEE Models 2008 Conference*. Runtime Models to Support User-Centric Communication. September, 2008. Pages 77 - 86  
<http://st.inf.tu-dresden.de/MRT08/MRT2008Proceedings.pdf>
36. Gonzalo Argote-Garcia, Peter J. Clarke, Yujian Fu, and Xudong He. *Proceedings of the 20<sup>th</sup> International Conference on Software Engineering and Knowledge Engineering (SEKE 2008)*, Knowledge Systems Institute. A Formal Approach for Translating a SAM Architecture to PROMELA. July 1-3, 2008, pages 440-447. (Acceptance rate 48%)
37. \*Yanelis Hernandez, Tariq M. King, Jairo Pava and Peter J. Clarke. *Proceedings of the 20<sup>th</sup> International Conference on Software Engineering and Knowledge Engineering (SEKE'08)*, Knowledge Systems Institute. A Meta-Model to Support Regression Testing of Web Applications. July 1-3, 2008, pages 500-507. (Acceptance rate 48%)
38. \*Jose A. Morales, Peter J. Clarke, and Yi Deng. *Proceeding of the 17<sup>th</sup> Annual European Institute for Computer Anti-Virus Research (EICAR) Annual Conference*. Detecting Self-Reference Replication Behavior in Win32 Viruses. May 3-8, 2008, pages 63-82. (Acceptance rate 35%).
39. Junhua Ding, Gonzalo Argote-Garcia, Peter J. Clarke, and Xudong He. *Proceeding of the 3<sup>rd</sup> International Workshop on Automated Software Testing co-located with ICSE 2008*, ACM. Evaluating Test Adequacy Coverage of High Level Petri Nets Using Spin. May 10-18, 2008, pages 71-78. (Acceptance rate 38%)
40. \*Richard Whittaker, Gonzalo Argote-Garcia, Peter J. Clarke and Raimund K. Ege. *Proceedings of the 3<sup>rd</sup> International Conference on Systems (ICONS 2008)*. IEEE Computer Society. Optimizing Secure Collaboration Transactions for Modern Information Systems. April 13-18, 2008, pages 62 – 68. (Acceptance rate 27%)
41. \*Andrew A. Allen, Sean Leslie, Ricardo Tirado, Yali Wu and Peter J. Clarke. *Proceedings of the 3<sup>rd</sup> International Conference on Systems (ICONS 2008)*, IEEE Computer Society. Self-Configuring User-Centric Communication Services. April 13-18, 2008, pages 253-259. (Acceptance rate 27%)
42. \*Jose A. Morales, Peter J. Clarke, and Yi Deng. *Proceedings of the 3<sup>rd</sup> International Conference on Systems (ICONS 2008)*, IEEE Computer Society. Characterizing and Detecting Virus Replication. April 13-18, 2008, pages 214-219. (Acceptance rate 27%)
43. \*Richard Whittaker, Gonzalo Argote-Garcia, Peter J. Clarke and Raimund K. Ege. *The 4<sup>th</sup> International Workshop on Security in Systems and Networks (SSN 2008) in conjunction with IPDPS*, IEEE Computer Society. Decentralized Mediation Security. April 18, 2008, pages 62-68 (Acceptance rate 25%).
44. \*Tariq M. King, Alain E. Ramírez, Barbara Morales and Peter J. Clarke. *Proceeding of the 23<sup>rd</sup> ACM Symposium on Applied Computing, Track on Autonomic Computing*, ACM. A Reusable Object-Oriented Design to Support Self-Testable Autonomic Software. March 16-20, 2008, Pages 1664-1669 (nominated for best paper award). (Acceptance rate 29%).
45. \*Yingbo Wang, Peter J. Clarke, Yali Wu, Andrew Allen and Yi Deng. *Proceedings of 11<sup>th</sup> IASTED International Conference on Software Engineering and Applications (SEA 2007)*, ACTA Press. Realizing Communication Services Using Model-Driven Development. Nov. 19-21, 2007, Pages 473-479.
46. Peter J. Clarke, James F. Power, Djuradj Babich and Tariq M. King. *Proceedings of the 18<sup>th</sup> IEEE International Symposium on Software Reliability Engineering (ISSRE 2007)*, IEEE Computer Society. Intra-Class Testing of Abstract Class Features. November 5-9, 2007,

pages 191 - 200 (Acceptance rate 26%).

47. Peter J. Clarke, Yingbo Wang, Tuan L. Cameron, and Yali Wu. *Proceedings of the International Conference on Software Engineering Theory and Practice (SETP-07)*, ISRST Using Communication Objects During Requirements Analysis. Invited Paper. July 9 -12, 2007, pages 213-220.
48. \*Tariq King, Djuradj Babich, Jonatan Alava, Ronald Stevens and Peter J. Clarke. *Proceedings of the 8<sup>th</sup> International Symposium on Autonomic and Decentralized Systems 2007 (ISADS 2007)*, IEEE Computer Society. Towards Self-Testing in Autonomic Computing Systems. March 22-24, 2007, pages 51-58.
49. Vagelis Hristidis, Peter J. Clarke, Nagarajan Prabakar, Yi Deng, Jeffrey A. White, Redmond P. Burke. *International Workshop on Health Information and Knowledge Management (HIKM 2006)*, ACM. A Flexible Approach for Electronic Medical Records Exchange. November 11, 2006, pages 33-40.
50. \*Richard Whittaker, Gonzalo Argote-Garcia, Peter J. Clarke, Raimund K. Ege. *Proceedings of the International Conference on Security and Cryptography (SECRYPT-2006)*, INSTICC. Collaborative Security for Modern Information Systems. August 7-10, 2006, pages 363-370.
51. \*Yingbo Wang, Peter J Clarke and Yi Deng. *Proceeding of the 2006 International Conference on Communications in Computing (CIC 2006)*, CSREA. Communication Model to Support Rapid Application Development. June 26-29, November 2006, pages 185-191.
52. \*Jonatan Alava, Tariq M. King and Peter J. Clarke. *Proceedings of the 30<sup>th</sup> Annual International Computer Software and Applications Conference (COMPSAC 2006)*, IEEE Computer Society. Automatic Validation of Java Page Flows Using Model-Based Coverage Criteria. September 17 – 21, 2006, pages 439 – 446 (Acceptance rate 31%).
53. Yi Deng, S. Masoud Sadjadi, Peter J. Clarke, Chi Zhang, Vagelis Hristidis, Raju Rangaswami, and Nagarajan Prabakar. *Proceedings of the 30<sup>th</sup> Annual International Computer Software and Applications Conference (COMPSAC 2006)*, IEEE Computer Society. A Communication Virtual Machine. September 17 – 21, 2006, pages 521 – 530 (Acceptance rate 31%).
54. \*Djuradj Babich, Kayan Chiu and Peter J. Clarke. *Proceedings of the 18<sup>th</sup> International Conference on Software Engineering and Knowledge Engineering (SEKE 2006)*, Knowledge Systems Institute. TaxTOOLJ: A Tool to Catalog Java Classes. July 5-7 2006, pages 375-380 (Acceptance rate 45%).
55. Peter J. Clarke, Vagelis Hristidis, Yingbo Wang, Nagarajan Prabakar and Yi Deng. *Proceedings of the International Symposium on Collaborative Technologies and Systems (CTS 2006)*, IEEE Computer Society, A Declarative Approach for Specifying User-Centric Communication. May 15 – 17 2006, pages 89 – 98.
56. \*Jose Morales, Peter J Clarke, and Yi Deng. *Proceedings of the Workshop on Software Security Assurance Tools, Techniques, and Metrics (SSATTM) in conjunction with ASE 2005*, NIST Special Publication 500-265. Testing and Evaluation of Virus Detectors for Handheld Devices. Pages 67-74, Feb. 2006. <http://samate.nist.gov/docs/>
57. \*Jonatan Alava and Peter J Clarke. *Proceedings of the 2nd MoDeVa Workshop - Model design and Validation 2005 (MODELS 2005)*. Model-Based Test Criteria Definition for Validating Annotated Web Applications. <http://www.irisa.fr/manifestations/2005/MODEVA2005/program.htm>
58. \*David Crowther, Djuradj Babich and Peter J. Clarke. *Proceedings of the 3rd ACIS International Conference on Software Engineering Research, Management & Applications (SERA 2005)*, IEEE Computer Society. A Class Abstraction Technique to Support the

Analysis of Java Programs During Testing. August 11 -13, 2005, pages 22 -29.

59. Junhua Ding, Dianxiang Xu, Yi Deng, Peter J. Clarke, Xudong He. *Proceedings of the 17th International Conference on Software Engineering and Knowledge Engineering (SEKE'2005)*, Knowledge Systems Institute. Design an Interoperable Mobile Agent System Based on Predicate Transition Net Models. Taipei, Taiwan July 14 – 16, 2005, pages 560 - 565.
60. Peter J. Clarke, Junhua Ding and Brian A. Malloy. *Proceedings of the International Conference on Information Technology (ITCC 2005)*, IEEE Computer Society. A Tool to Map Testing Techniques to Classes. April 4 – 6, 2005, pages 821 - 822.
61. Peter J. Clarke and Brian A. Malloy. *Proceedings of 8<sup>th</sup> IASTED International Conference on Software Engineering and Applications (SEA 2004)*, ACTA Press. Using a Taxonomy to Analyze Classes During Implementation-Based Testing. Nov. 9 - 11, 2004, pages 288 - 293.
62. Brian. A. Malloy, Peter. J. Clarke and Errol. L. Lloyd. *Proceedings of the 14<sup>th</sup> International Symposium on Software Reliability Engineering (ISSRE '03)*, IEEE Computer Society. A Parameterized Cost Model to Order Classes for Class-Based Testing of C++ Applications. Nov. 17-20, 2003, pages 353-364 (Acceptance rate 21%).
63. Peter Clarke, Brian Malloy, and Paul Gibson. *Proceedings of 7th European Conference on Software Maintenance and Reengineering (CSMR '03)*, IEEE Computer Society. Using a Taxonomy Tool to Identify Changes in OO Software, March 26-28, 2003, pages 213-222 (Acceptance rate 34%).
64. Peter Clarke and Brian Malloy. *Proceedings of 2nd Annual International Conference on Computer and Information Science (ICIS '02)*. ACIS. A Taxonomy of Classes to Identify Changes During Maintenance. Aug 8–9, 2002, pages 631-636.
65. S. Matzko, P. J. Clarke, T. H. Gibbs, B. A. Malloy, J. F. Power, and R. Monahan. *Proceedings of the 40th International Conference on Tools Pacific: Objects for internet, mobile and embedded applications*, ACM. Reveal: A Tool to Reverse Engineer Class Diagrams. Feb 18-21, 2002, pages 13-21.
66. Peter Clarke and B. Malloy. *Proceedings of 1st Annual International Conference on Computer and Information Science (ICIS '01)*, ACIS. A Unified Approach to Implementation-Based Testing of Classes. October 3-5, 2001 pages 226-234.

**Other** (Article in Professional Computer Magazines)

1. \*David Crowther and Peter J. Clarke. *Dr Dobbs Journal*. Comparison of Software Testing Tools. No. 373 June 2005, pages 26 – 33. NPR.

**Other Advisee Publications** (\*Undergraduate REU advisees, \*PhD advisees):

1. +Paola Boettner, +Mansi Gupta, \*Yali Wu, and \*Andrew A. Allen. 2009. Towards policy driven self-configuration of user-centric communication. In *Proceedings of the 47th Annual Southeast Regional Conference* (Clemson, South Carolina, March 19 - 21, 2009). ACM-SE 47 Article 35. ACM, New York, NY, pages 1-6.
2. +Jairo Pava, +Courtney Enoex, and \*Yanelis Hernandez. 2009. A self-configuring test harness for web applications. In *Proceedings of the 47th Annual Southeast Regional Conference* (Clemson, South Carolina, March 19 - 21, 2009). ACM-SE 47 Article 66. ACM, New York, NY, pages 1-6.
3. +Alain E. Ramirez, +Barbara Morales and \*Tariq M. King, "A Self-Testing Autonomic Job Scheduler", *Proceedings of the 46th Annual Southeast Regional Conference*, (ACM-SE 46), 2008.

4. \*Ronald Stevens, \*Brittany Parsons, and \*Tariq M. King, "A Self-Testing Autonomic Container", Proceedings of the 45th ACM Southeast Conference, (ACM-SE 45) (2007)

#### **Posters:**

1. Peter J. Clarke, Debra L. Davis, Yujian Fu, James Kiper, Gursimran Walia. Integrating Testing into CS/IT Courses Supported by a Cyberlearning Environment. Poster submitted to Envisioning the Future of Undergraduate STEM Education: Research and Practice on April 27-29, 2016 in Washington, DC. <http://www.enfusestem.org/projects/integrating-testing-into-csit-courses-supported-by-a-cyberlearning-environment/>
2. Peter J. Clarke and Edward L. Jones. Web-Based Repository of Software Testing Tools (WReSTT). Transforming Undergraduate Education in STEM: Making and Measuring Impacts. 2011 CCLI/TUES Principal Investigators (PIs) Conference January 26-28, 2011 Washington, DC. <http://ccliconference.org/abstracts/540>

#### **Chapters in Books**

1. Tariq M. King, Peter J. Clarke, Mohammed Akour, and Annaji S. Ganti. Validating Autonomic Service-Driven Applications: Challenges and Approaches. Handbook of Research on Architectural Trends in Service-Driven Computing. IGI Global. Editors Raja Ramanathan and Kirtana Raja. . Publisher IGI Global. Chapter 9. Pages 197-219. June, 2014.
2. Peter J. Clarke, Yali Wu, Andrew A. Allen, Frank Hernandez, Mark Allison and Robert B. France. Towards Dynamic Semantics for Synthesizing Domain-Specific Models. Formal and Practical Aspects of Domain-Specific Languages: Recent Developments. Editor Marjan Mernik. Publisher IGI Global. Chapter 9. Pages 242-269. September, 2012

#### **Government Reports or Monographs**

N/A

#### **Editorials**

1. Peter J. Clarke and Mohammad Zulkernine. Guest editorial to the Special Issue on "High Assurance Systems Engineering" in Software Quality Journal, Springer, 24(3) March, 2016. Pages 3 -5. ISSN: 0963-9314 doi:10.1007/s11219-016-9307-9
2. Ana Moreira, Bernhard Schätz, Peter Clarke and Antonio Vallecillo. Guest editorial to the Special Issue on "Modeling: Foundations and Applications" (MODELS 2013) in Software and Systems Modeling Journal. Springer, 16(2), May 2017, pages 309 – 311.
3. Martina Seidl and Peter J. Clarke. Guest Editorial on Special issue on "Software Modeling in Education" in Computer Science Education. Taylor and Francis Vol. 21 No. 4, 313-315. Nov. 2011. Editorial. <http://www.tandfonline.com/doi/pdf/10.1080/08993408.2011.630132>

#### **Edited Volumes**

1. Juan de Lara, Peter J. Clarke and Mehrdad Sabetzadeh (Eds). Proceedings of the MoDELS 2016 Demo and Poster Sessions co-located with ACM/IEEE 19th International Conference on Model Driven Engineering Languages and Systems (MoDELS 2016) Saint-Malo, France, October 2-7, 2016. <http://ceur-ws.org/Vol-1725/>

2. Peter J. Clarke and Mohammad Zulkernine (Eds). Special Issue on “High Assurance Systems Engineering” in Software Quality Journal, Springer, 24(3) March, 2016. ISSN: 0963-9314.
3. Ana Moreira, Bernhard Schätz, Peter Clarke and Antonio Vallecillo (Eds). Special Issue on “Modeling: Foundations and Applications” (MODELS 2013) in Software and Systems Modeling Journal, Springer, 16(2), May 2017.
4. Peter J. Clarke and Mohammad Zulkernine (Eds): Proceedings for the 2014 IEEE 15th International Symposium on High-Assurance Systems Engineering, 9 – 11 January 2014. Miami, FL, USA.
5. Ana Moreira, Bernhard Schätz, Jeff Gray, Antonio Vallecillo, Peter J. Clarke (Eds.): Model-Driven Engineering Languages and Systems - 16th International Conference, MODELS 2013, Miami, FL, USA, September 29 - October 4, 2013. Proceedings. Springer 2013 Lecture Notes in Computer Science ISBN 978-3-642-41532-6
6. Martina Seidl and Peter J. Clarke (Eds). Special issue on “Software Modeling in Education” in Computer Science Education. Taylor and Francis. Vol. 21 No. 4, Nov. 2011. <http://www.tandfonline.com/doi/pdf/10.1080/08993408.2011.630132>
7. Proceedings of the 6<sup>Th</sup> Educators’ Symposium: Software Modeling in Education at MODELS 2010 (EduSym 2010). Electronic Communications of the EASST, Volume 34. Guest Editors: Peter J. Clarke and Martina Seidl. Publication date: May 2011. ISSN 1863-2122.
8. Proceedings of the International Association of Science and Technology for Development (IASTED) International Conference on Informatics 2010. Editors Peter. J. Clarke, Teofilo Gonzalez and Gurpreet Singh. Publication date: 18-Nov-2010. CD ISBN: 978-0-88986-851-9; ISSN: 1924-200X.

### **Book Reviews**

N/A

### **Technical Reports**

1. Junhua Ding, Peter J. Clarke, Gonzalo Argote-Garcia and Xudong He. Evaluating Test Adequacy Coverage of High Level Petri Nets Using Spin. Technical Report: FIU-SCIS-2006-05-02, May, 2006.
2. Peter J. Clarke, Djuradj Babich, Tariq King and B.M. Golam Kibria. A Prediction Model for the Combination of Class Characteristics in Large OO Applications. Technical Report: FIU-SCIS-2006-05-01, May, 2006.
3. Yi Deng, S. Masoud Sadjadi, Peter J. Clarke, Chi Zhang, Vagelis Hristidis, Raju Rangaswami, and Nagarajan Prabakar. A Unified Architectural Model for On-Demand User Centric Communications. Technical Report: FIU-SCIS-2005-09, September, 2005.
4. Peter. J. Clarke and Brian. A. Malloy. Mapping Implementation-Based Testing Techniques to Object-Oriented Classes. Florida International University, School of Computer Science, Technical Report: FIU-SCS-2004-08, August 2004.
5. Peter. J. Clarke and Brian. A. Malloy. A Taxonomy of Classes for Implementation-Based Testing. Clemson University, Department of Computer Science Technical Report 05-14-2001, May 2001.

## **PRESENTED PAPERS, LECTURES, EXHIBITIONS, AND PERFORMANCES**

1. "Learning and Engagement Strategies". Third Workshop on Using Learning and Engagement Strategies in Software Engineering and Programming Courses (LESSEP 17-2) at American Society for Engineering Education (ASEE) Annual Conference Columbus, Ohio, June, 28th, 2017.
2. "Learning Objects". Third Workshop on Using Learning and Engagement Strategies in Software Engineering and Programming Courses (LESSEP 17-2) at American Society for Engineering Education (ASEE) Annual Conference Columbus, Ohio, June, 28th, 2017.
3. "Using WReSTT Cyberlearning Environment in the Classroom". June 18<sup>th</sup>, 2014 American Society for Engineering Education (ASEE) Annual Conference Columbus, Ohio, 06/25 - 06/28
4. "Gamification". Second Workshop on Using Learning and Engagement Strategies in Software Engineering and Programming Courses (LESSEP 17-1) at FIU June, 2th, 2017.
5. "Learning Objects". Second Workshop on Using Learning and Engagement Strategies in Software Engineering and Programming Courses (LESSEP 17-1) at FIU June, 2th, 2017.
6. "Learning Objects". First Workshop on Using Learning and Engagement Strategies in Software Engineering and Programming Courses (LESSEP 16) at FIU June, 10<sup>th</sup>, 2016.
7. "Experiences Using a Cyberlearning Environment to Improve Students' Software Testing Skills". FIU DBER meeting Monday, March 21<sup>st</sup>, 2016.
8. "Integrating [Testing] into (Software Engineering Courses) Supported by a Cyberlearning Learning Environment." Physics Education Research Group. FIU February, 23, 2016.
9. "Notes from the Field" Faculty Fellows Symposium. FIU STEMposium, February 5, 2016.
10. Educator's Symposium Panel, at MODELS 2015 in Ottawa, Canada, September 29<sup>th</sup>, 2015.
11. "Introduction to WReSTT; Using WReSTT – Student's View", June 12th 2015, Sixth Workshop on Integrating Software Testing into Programming Courses (WISTPC 2015), Florida International University.
12. "Using Learning Objects in WReSTT", July 18th 2014, Fifth Workshop on Integrating Software Testing into Programming Courses (WISTPC 2014:2), Florida International University.
13. "Observations on Student Use of Tools in an Undergraduate Testing Class". June 17<sup>th</sup>, 2014 2014 American Society for Engineering Education (ASEE) Annual Conference Indianapolis, 06/15 - 06/18
14. "Assessing BS–CS Student Outcomes Using Senior Project". June 17<sup>th</sup>, 2014 2014 American Society for Engineering Education (ASEE) Annual Conference Indianapolis, 06/15 - 06/18
15. "Synthesizing User-Defined Models in a Domain-Specific Virtual Machine", April 4th 2014, Computer Science Department Colloquium at Old Dominion University.
16. "Using Learning Objects in WReSTT", March 5th 2014, Fourth Workshop on Integrating Software Testing into Programming Courses (WISTPC 2014:1), Workshop #4 at Special Interest Group on Computing Education Conference (SIGCSE 2014).
17. "Overview of Software Testing", July 12th 2013, Third Workshop on Integrating Software Testing into Programming Courses (WISTPC 2013), Florida International University.
18. "Using Learning Objects in WReSTT", July 13th 2013, Third Workshop on Integrating Software Testing into Programming Courses (WISTPC 2013), Florida International University.

19. "Model-Driven Development of i-DSML Execution Engines". October 2 2012, Models@Runtime workshop, Satellite event at the ACM, IEEE MODELS 2012 Conference. Innsbruck Austria. (Refereed)
20. "i-DSML for User-Driven Microgrid Energy Management." April 13 2012. Mini Workshop Computer Science Department Seminar, Colorado State University. (Invited).
21. "Using WReSTT in SE Courses: An Empirical Study." March 2, 2010. Symposium of the ACM Special Interest Group on Computer Science Education. Raleigh North Carolina, USA. (Refereed)
22. "Using a Web-Based Repository to Integrate Testing Tools into Programming Courses." ACM international Conference Companion on Object Oriented Programming Systems Languages and Applications (SPLASH 10), Reno/Tahoe, Nevada, USA, October 18th, 2010. (Refereed)
23. "Modeling and Realizing User-Centric Communications". September 17<sup>th</sup> 2010, Mobile Technology Consortium, Miami Dade College.
24. "Modeling and Realizing User-Centric Communication Services", September 10th 2010 School of Computing and Information Sciences, FIU Colloquium.
25. "Introduction to Software Testing", June 23<sup>rd</sup> 2010, Second Workshop on Integrating Software Testing into Programming Courses (WISTPC 2010), Florida International University.
26. "WReSTT – Web-Based Repository of Software Testing Tools", January 31<sup>st</sup> 2010, 9<sup>th</sup> Workshop on Teaching Software Testing, Melbourne Florida.
27. "An Autonomic Framework for User-Centric Communication Services", November 5<sup>th</sup> 2009, IBM CASCON 2009, Markham, Ontario Canada. (Refereed)
28. "Modeling and Rapidly Realizing User-Centric Communication Applications", October 20<sup>th</sup> 2009. Computer Science, Mathematics and Physics Department Seminar, University of the West Indies Cave Hill Campus. (Invited)
29. "Experiences of Teaching Model-Driven Engineering in a Software Design Course", October 6<sup>th</sup> 2009, Educators' Symposium in conjunction with the ACM, IEEE Models 2009 Conference. Denver Colorado USA. (Refereed)
30. "Towards the Operational Semantics of User-Centric Communication Models", July 21st 2009, 33th Annual International Computer Software and Applications Conference (COMPSAC 06) Seattle Washington. (Refereed)
31. "Introduction to a Web-Based Repository for Software Testing Tools (WReSTT)", March 16<sup>th</sup> 2009, First Workshop on Integrating Software Testing into Programming Courses (WISTPC 2009), Florida International University.
32. "Runtime Models to Support User-Centric Communication", September 30<sup>th</sup> 2008, Models@runtime Workshop in conjunction with the ACM, IEEE Models 2008 Conference. Toulouse France. (Refereed)
33. "Computer-Based Communication in Distributed Collaborative Environments", July 17<sup>th</sup> 2008. Information Science & Technology Center and Computer Science Department Workshop, Colorado State University. (Invited)
34. "Modeling and Rapidly Realizing User-Centric Communication Applications", July 15<sup>th</sup> 2008. Computer Science Department Seminar, Colorado State University. (Invited)
35. "Automated Testing of Web Applications", August 30<sup>th</sup> 2007. Ultimate Software Company, Weston, Florida. (Research Presentation)

36. "Using Communication Objects During Requirements Analysis", July 11<sup>th</sup> 2007, International Conference on Software Engineering Theory and Practice (SETP-07), Orlando Florida. (Refereed)
37. "Towards Self-Testing in Autonomic Computing Systems", REU recruitment presentation and invited colloquium, February 16, 2007, Florida A & M University. (Invited)
38. "A Taste of Software Engineering", November 5<sup>th</sup> 2006, ACM SIGSOFT Inspirations Workshop co-located with FSE 14 2006. Invited Panelist
39. "Automatic Validation of Java Page Flows Using Model-Based Coverage Criteria", September 20<sup>th</sup> 2006, 30<sup>th</sup> Annual International Computer Software and Applications Conference (COMPSAC 06) Chicago Illinois. (Refereed)
40. "Research in Software Testing Group at FIU", September 15<sup>th</sup> 2006 School of Computing and Information Sciences FIU Colloquium.
41. "A Declarative Approach for Specifying User-Centric Communication", May 15, 2005, Collaborative Technologies and Systems (CTS) Symposium 2006, Las Vegas, Nevada. (Refereed)
42. "A Taxonomy of OO Classes to Support Implementation-Based Testing", Department Colloquium, March 22, 2005, Florida A & M University. (Invited)
43. "A Taxonomy of OO Classes to Support Testing", research presentation, November 16 2004, AT&T Research Labs. (Invited)
44. "Using a Taxonomy to Analyze Classes During Implementation-based Testing", presented paper at the 8<sup>th</sup> IASTED Software Engineering Applications (SEA), November 11 2004, University Hotel, MIT, Cambridge. (Refereed)
45. "A Unified Approach to Implementation-based Testing of Classes", presented paper at First ACIS International Conference on Computer and Information Science, October 3 2001, Grosvenor Resort, Orlando Florida. (Refereed)

### **CREATIVE WORK**

1. Development of a Web-Based Repository of Software Testing Tools (WReSTT) to support pedagogy in software testing. 2009. Collaborative effort with Florida A&M University.
2. Transformation of Web-Based Repository of Software Testing Tools into the Web-Based Repository of Software Testing Tutorials (WReSTT). A cyberlearning environment to support pedagogy in software testing. 2012. <http://wrestt.cis.fiu.edu/cen/>. Collaborative effort with Alabama A&M University, Miami University - Ohio, and North Dakota State University.

### **WORKS IN PROGRESS**

#### **Other completed papers**

1. Nicole Ruggiano, Ellen L Brown, Lisa Roberts, Vagelis Hristidis, and Peter J. Clarke. Extending Health Information Technology to Enhance Primary Care for Older Hispanics with Dementia and Support Hispanic Caregivers. Gerontological Society of American Meeting. Annual Scientific Meeting, 2016 (accepted 06/15/16)

## Patent Submitted

1. Peter J. Clarke, Raymond Chang-lau, Steve Foo and Debra L. Davis. "STEM-CyLE: Science Technology Engineering and Mathematics Cyberlearning Environment." Submitted to FIU Office of Technology Management and Commercialization on July 17<sup>th</sup>, 2017.

## Research in Progress

1. Collaborating with Dr. Tariq King, Ultimate Software to develop techniques for self-testing of autonomic software.
2. Collaborating with Dr. Yujian Fu at Alabama A&M University, Dr. James Kiper at Miami University Ohio, and Dr. Gursimran Walia to develop learning materials to integrate testing into undergraduate CS/IT programming courses. <http://wrestt.cis.fiu.edu/>

## Grant Proposals

Pending:

## **FUNDED RESEARCH**

1. Dr. Monique Ross (PI), Dr. Peter J. Clarke (Co-PI), Dr. Geoffrey Potvin (Co-PI) and Dr. Mario Eraso (Snr Iv.). Title: "Exploration and Design: Understanding the implications of gamification on women computer science students' engagement and women-CS fit". Agency: NSF, DUE: 1712116. Dates: 05/01/17 – 04/30/20. Value of award \$300K.
2. Dr. Peter J. Clarke. Title: Ultimate Software Graduate Research Assistant -Software Testing Lab". Donor Ultimate Software Group Inc. Value of award \$51K for one year. Dates: 05/01/17 to 08/20/18.
3. Dr. Ingrid Buckley (PI), Dr. Bogdan Carbunar (FIU-PI), Dr. Peter J. Clarke (Co-PI), and Dr. Francisco Ortega (Co-PI). Title: "Using a Cyberlearning Environment to Enhance Critical Cybersecurity Education". Agency: Florida Center for Cybersecurity (FC2), Dates: 06/01/2017 – 05/31/2018. Funds requested \$95,437. FIU's share \$58,666.
4. Dr. Peter J. Clarke (Lead PI), Dr. Geoff Potvin (Co-PI), Dr. M. O. Thirunarayanan (Co-PI), Dr. Debra Davis (Co-PI) - Florida International University (FIU) lead institution, DUE-1525112; Dr. Yujian Fu (PI) and Dr. Nelson Barnes (Co-PI) – Alabama A&M University, DUE-1525120; Dr. Edward Jones (PI) - Florida A&M University, DUE-1525555; Dr. Ingrid Buckley (PI) - Florida Gulf Coast University, DUE-1562773; Dr. Andrew Allen (PI) - Georgia Southern University, DUE-1525208; Dr. James Kiper (PI) - Miami University Ohio, DUE-1525131; Dr. Gursimran Walia (PI) – North Dakota State University, DUE-1525414; and Ms. Debra Duke (PI) – Virginia Commonwealth University, DUE-1525125;. Project title: "Collaborative Research: Engaged Student Learning - Design and Development Level II: Using a Cyberlearning Environment to Improve Student Learning and Engagement in Software Courses". Agency: NSF. Dates: 09/01/15 – 08/31/19. Value of award: \$1.84M for 4 years. FIU's share \$822K.
5. Dr. Peter J. Clarke. Supplemental award for "Type 2 Collaborative Project: Integrating Testing into Advanced CS/IT Courses Supported by a Cyberlearning Environment", Agency: NSF. Supplement to DUE-1225742. Dates: 06/01/15 to 07/31/16. Value of award \$15.6K.
6. Dr. Peter J. Clarke (PI), Raymond Chang-lau and David Chu. "Commercial Software Testing Cyberlearning Environment (WReSTT-Com)". Agency NSF. IIP-1455053. I-Corps

Program. Value of award \$50K for 6 months. Dates 09/01/14 – 02/28/15.

7. Dr. Peter J. Clarke (Lead-PI), Dr. Debra Davis (Co-PI) – Florida International University (FIU) lead institution, DUE-1225742; Dr. Tariq M. King (PI) - North Dakota State University, DUE-1225972; Dr. James Kiper (PI) Miami University-Ohio, DUE-1224411; and Dr. Yujian Fu (PI) and Dr. Nelson Barnes (Co-PI) Alabama A&M University, DUE-1225654. “Type 2 Collaborative Project: Integrating Testing into Advanced CS/IT Courses Supported by a Cyberlearning Environment”, Agency NSF. Dates: 08/15/12 – 07/31/15. Value of award \$600K for 3 years. FIU’s share \$360K.
8. Dr. Masoud Milani (PI), Dr. Xudong He (Co-PI), Dr. Peter J. Clarke (Co-PI) and Dr. Christine Lisetti (Co-PI). “GAANN Fellowships in Computer Science at FIU”, Agency: US Dept of Ed., Dates: 08/01/2009 to 07/31/2012. Value of award \$643K for 3 years.
9. Dr. Peter J. Clarke. Supplemental award for “Collaborative Research: Web-Based Repository of Software Testing Tools”, Agency: NSF. Supplement to DUE-0736833. Dates: 02/01/08 to 01/31/10. Value of award \$20K.
10. Dr. Yi Deng (PI), Dr. Xudong He (Co-PI), Dr. Naphtali Rische (Co-PI), Dr. Malek Adjouadi (Co-PI), and Dr. Armando Barreto (Co-PI). "CREST: Center for Innovative Information Systems Engineering". Agency: NSF HRD-0833093. Dates: 8/1/08 to 7/31/13. Amount \$5M. Role: Senior Investigator.  
  
Subproject: Dr. Xudong He (PI), Shu-Ching Chen (Co-PI), Peter J. Clarke (Co-PI), Xiaowen (Jason) Liu (Co-PI), S. Masoud Sadjadi (Co-PI), and Armando Barreto (Co-PI). CREST "Complex System Modeling, Analysis and Realization (CS-MAR)". Role in subproject: Co-PI.
11. Dr. Xudong He (PI) and Dr. Peter J. Clarke (Co-PI). “An Integrated Software Tool for Modeling and Model-based Control of Semiconductor Manufacturing Equipment”. Agency: NSF/SC Solutions, Inc. NSF IIP-0450482. Dates: 6/15/08 to 6/14/09. Value of award \$105K for one year.
12. Dr. Peter J. Clarke (PI). “Self-Configuration of Communication Frameworks to Aggregate Services and Minimize Communication Cost to Users”, Agency: FIU Foundation. Dates: 06/25/08-06/22/09. Value of award: \$18,396 for one year.
13. Dr. Peter J. Clarke, (PI-Lead), Dr. Rochelle Michel (Snr. Inv). “Collaborative Research: Web-Based Repository of Software Testing Tools”, Agency: NSF DUE-0736833. Dates: 02/01/08 to 01/31/10. Value of award \$112K for 2 years. Collaborative proposal with Dr. Edward Jones (PI-FAMU) NSF DUE-0736771. Dates: 02/01/08 to 01/31/10. Value of award \$38K for 2 years.
14. Dr. Xudong He (PI), Dr. Masoud Milani (Co-PI) and Dr. Peter J. Clarke (Co-PI). “Graduate Assistance in Areas of National Need”, Agency: US Dept of Ed. P200A070543, Dates: 08/15/2007 to 08/14/2010. Value of award 383K for 3 years.
15. Dr. Masoud Milani (PI), Dr. Tao Li (Co-PI), Dr. Peter J Clarke (Snr. Inv.), Dr. Raju Rangaswami (Snr. Inv.), Dr. S. Masoud Sadjadi (Snr. Inv.), and Dr. Chi Zhang (Snr. Inv.). “Research Experiences for Undergraduates: Autonomic Computing Research at FIU” Agency: NSF IIS-0552555, Dates: 02/15/2006 to 01/31/2009. Value of award \$ 300K for 3 years.

## **PATENT DISCLOSURES, APPLICATIONS, AND AWARDS**

1. Yi Deng, S. Masoud Sadjadi, Steve Luis, Peter J. Clarke, Chi Zhang, Vagelis Hristidis, and

Raju Rangaswami. Communication Virtual Machine (CVM)". Pub. No: WO/2008/042971, International Application No: PCT/US2007/080327, IPS: G06F 17/50 (2006.01). Patent No.: US 9,146,710 B2. Date of Patent: Sep. 29, 2015.

2. Peter J. Clarke, Raymond Chang-lau, Tarig M. King, Jairo Pava, Dionny Santiago, Yesenia Sosa, Edward L. Jones, James Kiper, Steve Foo, and Hussain Suttarwala. Application of Intellectual Property Software Disclosure titled, "WReSTT-CyLE – Web-based Repository of Software Testing Tutorials: A Cyber-Learning Environment (software platform)". Submitted to FIU Technology Office on April 16th 2015.
3. Yi Deng, S. Masoud Sadjadi, Steve Luis, Peter J. Clarke, Chi Zhang, Vagelis Hristidis, and Raju Rangaswami. Communication Virtual Machine (CVM)". Pub. No: WO/2008/042971, International Application No: PCT/US2007/080327, IPS: G06F 17/50 (2006.01). Patent No.: US 8,578,325 B2. Date of Patent: Nov. 5, 2013.

## **PROFESSIONAL HONORS, PRIZES, FELLOWSHIPS**

### **Department**

- SCIS Excellence Award in Student Mentorship, 2011.
- SCIS Excellence Award in Student Mentorship, 2008.

### **School/College**

- CEC Faculty Mentorship Award, 2016.

### **University**

- 2015-2016 Outstanding Organization in the Engineering Community, FIU Council for Student Organizations (Faculty Advisor)
- STEM Transformation Institute's Founding Faculty Fellow, 2015

### **Other**

- South Florida's Top Black Educator Award of 2016
- 2015-2016 Outstanding National Chapter Award, Upsilon Pi Epsilon (Faculty Advisor)
- Miami Magnet 2014 Award. In acknowledgement of the contribution to the meetings and convention industry of Greater Miami & The Beaches. Presented by Greater Miami Convention and Visitors Bureau. Hosting the IEEE/ACM MODELS 2013 and IEEE HASE Conferences in the Miami area.
- Travel Grant to attend 2008 National Science Foundation Advanced Grant Writing Conference February 11-12, 2008.
- Travel Grant to attend NSF sponsored workshop: Assessing the State of STEM Concept Inventories. May 10 -12, 2007.
- Travel Grant to attend the NSF Grant Writing Workshop on February 27-28, 2007.
- Who's Who in America 2007.
- Who's Who Among America's Teachers, 2005, 2006.
- EAP travel grant valued at \$1000 – International Conference on Software Engineering, 2005.
- QEM Travel award valued at \$ 452 - Quality Education for Minorities (QEM) Network Workshop for the NSF's Faculty Early Career Development (CAREER) Program. February 2005

- NSF Travel award valued at \$1800 - Educators Grant Program co-located with SIGSOFT, FSE12. November 2004.
- Outstanding Doctoral Student, April 2003, Clemson University Computer Science Department.
- Outstanding Graduate Teaching Assistant, April 2001, 2002, 2003, Clemson University Computer Science Department.
- Fulbright-LASPAU Scholarship to pursue a Masters in Computer Science, August 1994, SUNY- Binghamton.

### **OFFICES HELD IN PROFESSIONAL SOCIETIES**

- Member, Association for Computing Machinery (ACM). Including Special Interest group in Software Engineering (SIGSOFT), Special Interest group in Computer Science Education (SIGCSE), and Special Interest group in Applied Computing (SIGAPP). Member since 2000.
- Member, Institute of Electrical and Electronics Engineers (IEEE), including IEEE Computer Society member since 1999, IEEE Education Society member since 2011.
- Founding member of the Association for Software Testing.
- Active-for-life member of The Honor Society Phi Kappa Phi, September 2004.
- Member, American Society for Engineering Education (ASEE), member since 2014.
- Past Member, International Association of Science and Technology for Development (IASTED)

### **OTHER PROFESSIONAL ACTIVITIES AND PUBLIC SERVICE**

#### **Research Activities**

Dissertation/Thesis Directed:

- Karl Morris – PhD Dissertation “A Middleware to Support Services Delivery in a Domain-Specific Virtual Machine” graduated Summer 2014. Major Advisor. GAANN Fellowship Awardee, Fall 2010. Dr. Morris is currently a non-tenure-track assistant professor at Temple University.
- Mark Allison – PhD Dissertation “A Generic Model of Execution for Synthesizing Interpreted Domain-Specific Models” graduated Summer 2014. Major Advisor. Dr. Allison is currently a tenure-track assistant professor at University of Michigan at Flint.
- Yali Wu – PhD Dissertation “A Domain-Specific Modeling Approach for Coordinating User-Centric Communication Services” graduated Summer 2011. Major Advisor. Presidential Fellow 2007. NSF PIRE Awardee, INRIA Research Lab Rennes France, Summer 2009. Dissertation Year Fellowship 2011. Dr. Wu is a Software Engineer at Twilio Inc.
- Andrew Allen – PhD Dissertation “Abstractions to Support Dynamic Adaptation of Communication Frameworks for User-centric Communication” graduated Spring 2011. Major Advisor. NSF PIRE Awardee, INRIA Research Lab Rennes France, Summer 2009. Dissertation Year Fellowship Awardee Spring 2010 – Fall 2010. Dr. Allen is a tenure-track assistant professor at Georgia Southern University.
- Yingbo Wang - PhD Dissertation “Modeling Communication for Rapid Realization” graduated Summer 2009. Co-Major Advisor. Presidential Fellow 2007.

- Tariq King - PhD Dissertation "A Self-Testing Approach for Autonomic Software" graduated Summer 2009. Major Advisor. NSF PIRE Awardee, Internship at China IBM Research Lab, Summer 2008. Dr. King was a tenure-track Assistant Professor in the Department of Computer Science at North Dakota State University until 2012. Currently Director of Software Test Engineering at Ultimate Software.
- Richard Whittaker - PhD Dissertation "Collaborative Mediation" graduated Spring 2009. Major Advisor. PhD Student in Economics at FIU.
- Jose Morales – PhD Dissertation "A Behavior Based Approach to Virus Detection" graduated Spring 2008. Co-Major Advisor. Dr. Morales was a Research Assistant Professor in the Institute for Cyber Security at the University of Texas at San Antonio 2008 - 2011. He is currently a researcher at the CERT Division at Carnegie Mellon University.
- David Crowther – MS Thesis "Analyzing Characteristics of Java Classes as Related to Implementation-Based testing", graduated Summer 2005. Major Advisor. Mr. Crowther is currently Lead Programmer/Analyst at Bristol West.

Major Advisor:

- Rodlofo Cruz – expected to take the candidacy exam in Fall 2014. Terminated Fall 2014.
- Djuradj Babich – completed PhD proposal Summer 2010, Terminated Fall 2010.
- Frank Hernandez - passed PhD candidacy exam Spring 2011, expected PhD proposal date Summer 2012. GAANN Fellowship Awardee, Fall 2009. Terminated Spring 2013.
- Juan Carlos Martinez – expected PhD proposal date TBA, expected graduation date Spring TBA. On leave Summer 2011. Terminated in Fall 2011.

PhD Dissertation Committee:

- Mershack Okoe – completed proposal in Spring 2015, graduated Summer 2016. PhD Advisor Dr. Radu Jianu
- Zhuo Sun – expected proposal
- Francisco Ortega – graduated Fall 2014, PhD Advisors: Dr. Naphtali Rishe and Dr. Armando Barreto
- Su Liu – proposal Spring 2013, graduated Summer 2014. PhD Advisor: Dr. Xudong He
- Barbara Espinoza – proposal Spring 2013, graduated Spring 2014. PhD Advisor: Dr. Geoffrey Smith
- Zheng Cui – proposal Spring 2013, graduated Fall 2013. PhD Advisors: Dr. Shu-Ching Chen and Dr. Keqi Zhang
- Abhishek Bhattacharya – graduated Summer 2012. PhD Advisor: Dr. Zhenyu Yang
- Rafael Alpizar – graduated Spring 2011. PhD Advisor: Dr. Geoffrey Smith
- Reng Zeng – graduated Summer 2012. PhD Advisor: Dr. Xudong He
- Lily Chang – graduated Spring 2011. PhD Advisor: Dr. Xudong He
- Fernando Farfan – graduated Fall 2009. PhD Advisor: Dr. Evangelos Christidis
- Gonzalo Argote – graduated Spring 2009. PhD Advisor: Dr. Xudong He
- Irene Polycarpou – graduated Spring 2008.
- Weixiang Sun - graduated Spring 2008
- Onyeka Ezenwoye - graduated Summer 2007.
- Yujian Fu - graduated Spring 2007.

- Li Yang, and Qasem Kharma, graduated Summer 2005.

#### PhD Candidacy Committees:

Jonatan Alava, Andrew Allen, Mark Allison, Gonzalo Argote, Djuradj Babich, Xabriel J. Collazo-Mojica, Barbara Espinoza, Onyeka Ezenwoye, Fernando Farfan, Yujian Fu, Yu Hang, Frank Hernandez, Qasem Kharma, Tariq King, Su Liu, Ziyuan Meng, Jose Morales, Karl Morris, Francisco Ortega, Leonard Reisman, Ramakrishna Varadarajan, Yingbo Wang, Richard Whittaker, Yali Wu, Miaohua Xu, Reng Zeng, Sun Zhuo.

#### MS Thesis committees:

Mani Shafaatdoost – graduated Fall 2012.

Gowthami Thota – graduated Fall 2010.

Harini Kondamudi – graduated Summer 2010

Fernando Trigos – graduated Summer 2007

Sylvia Miner – graduated Summer 2004

#### Honors College Thesis Directed:

- Jairo Pava, Thesis “A Web Repository for Software Testing tools”, Spring 2010. Honorable mention in the CRA Outstanding Undergraduate Researchers Award. SCIS Outstanding Undergraduate Student Award, Fall 2010. Outstanding Undergraduate Researcher Award, Honorable Mention, Computing Research Association. FIU Worlds Ahead Undergraduate Recipient.
- Tiffany Brown, Thesis “Towards a Self-Configuring Communication Framework Policy Definition”, Spring 2009.

#### Research Mentor:

- Research mentor for four (4) REU students: Paola Boettner, Courtney Enoex, Mansi Gupta, and Jairo Pava. Summer 2008. NSF REU Grant IIS-0552555.
- Jairo Pava (Sarah and Solomon Rosenberg Scholarship recipient) and Tiffany Brown Honors College students.
- Research mentor for four (4) REU students: Barbara Morales, Alain E. Ramirez, Sean Leslie and Ricardo Tirado. Summer 2007. NSF REU Grant IIS-0552555.
- Research Mentor for two (2) REU students: Ronald Stevens and Brittany Parson. Summer 2006. NSF REU Grant IIS-0552555.

#### Graduate Students Supported on Grants

- Steve Foo (Fall 2015 – Fall 2016)
- Anjli Chhatwani (Summer 2016 – Fall 2016)
- Hussain Suttarwala (Spring, Summer Fall 2015)
- Raymond Chang-lau
- Andrew Allen
- Tariq King

#### Undergraduate Students Supported on Grants

- Alan Nieto (Sprin 2016 to Fall 2016)
- Steve Foo (Fall 2014 to Fall 2015)
- Eric Weiterman (Fall 2013 to Spring 2014)

#### Research Groups:

- Software Testing Research Group (STRG), Faculty Coordinator.  
<http://www.cis.fiu.edu/strg/>
- Modeling Communication Services Group (CVM), Faculty Coordinator.  
<http://www.cis.fiu.edu/cml/>

## Teaching Activities

### Graduate Courses:

- CEN 5011 Advanced Software Engineering – Spring 2004, Fall 2007, Fall 2008, Fall 2015, Spring 2016
- CEN 5076 Software Testing - Fall 2004, Fall 2005, Fall 2006, Fall 2007, Fall 2008, Fall 2011, Fall 2012, Fall 2013, Fall 2014, Fall 2016.
- CEN 5064 Software Design - Spring 2007, Spring 2008, Spring 2009, Fall 2010, Spring 2013, Spring 2014, Spring 2015.

### Undergraduate Courses:

- CEN 4010 Software Engineering I - Fall 2003, Spring 2004, Fall 2004, Fall 2005, Spring 2006, Fall 2006, Summer 2007 (Jamaica Program), Spring 2008, Summer 2009, Fall 2009, Summer 2010, Summer 2011, Summer 2012, Summer 2013.
- CEN 4015 Software Project - Spring 2004, Spring 2005, Spring 2006, Spring 2007, Spring 2008, Spring 2009 (cross-listed with CIS 4911).
- CEN 4021 Software Engineering II - Spring 2005, Spring 2007 (cross-listed with CEN 5064), Spring 2008 (cross-listed with CEN 5064).
- CEN 4072 Fundamentals of Software Testing – Fall 2010, Fall 2011, Fall 2012, Fall 2013, Summer 2014, Fall 2014, Summer 2015, Fall 2015, Spring 2016, Summer 2016, Spring 2017, Summer 2017.
- COP 4555 Programming Languages - Fall 2007 (Jamaica Program)
- CIS 4911 Senior Project – Fall 2008, Spring 2009, Fall 2009, Spring 2010, Fall 2010, Spring 2011, Summer 2011, Spring 2012 (co-taught), Summer 2012 (co-taught).

### Courses Developed:

- CEN 5076 Software Testing
- CIS 4911 Senior Project
- CEN 4072 Fundamentals of Software Testing

### Senior Projects Mentored:

- Fall 2008
  - *FIU Maps*. Yudiesly Herrera, Jairo Quintana, Carlos Perez, Rolando Ramos.
- Fall 2009
  - *SecureOne*. Alina Gayazova, Alina Gayazova
- Spring 2010
  - *Panther Station*. Dayana Paez, Jonatan Gonzalez, Alexander Kintis
  - *Know Your Peer (KYP)*. Carlos Lopez, Carlos Lopez, Carlos Lopez
- Fall 2010
  - *PantherCare*. Marcial Donet, Fernando Escobar, Juan Obregon, Michael Tracy.
  - *Math Instant Messenger for Visually Impaired People (MiM/VIP)*. Arian Acosta, Carlos Bustamante, Christopher Casanova, Raul Fuentes, Barbara Gonzalez.
  - *CVM Mediator*. Luis Bautista, Eduardo Flores, Jandry Guerra, Ivan Olmos.

- Spring 2011
  - *Web-Based Repository of Software Testing Tools (WReSTT)*. Jairo Pava, Dionny Santiago, Yesenia Sosa
  - *PantherCare 2*. Raymond Chang-Lau, Felipe Diep, Yoaime Hernandez, Jaime Soto.
- Summer 2011
  - *Panther Commencement System*. Walter Caceres, Paul Iaszfalvi, Jaime Martinez, Mario Saavedra, Pedro Torres.
- Summer 2012
  - *Cloud Control*. Eugene Acle, Samuel Barrios, Carlos Rodriguez
- Fall 2015
  - *WReSTT-CyLE Enhancements 1.0*. Antonio Arrieta, Steve Foo, Michael Fuentes, Anais Hernandez, Aqib Shah

### **University Service:**

- Faculty Senate On-Line Review Committee, 2016-2017
- FIU Faculty Senator, 2016-2017.
- College of Engineering and Computing Dean Search Committee 2015-2017.
- Advancing Student Success and Career Integration Committee 2015-2016
- Association of College and University Educators (ACUE) Spring Professional Development Pilot Program, Spring 2016.
- Faculty Senate On-Line Review Committee, 2015-2016
- FIU Faculty Senator, 2015-2016.
- Graduate Student Academic Grievance and Misconduct Committee, 2015-2016
- Session Chair McNair Scholars Research Conference 2015.
- Served as a reviewer for the STEM-RC FIU competition, 2014-2015.
- Graduate Student Academic Grievance and Misconduct Committee, 2014-2015
- Graduate Student Academic Grievance and Misconduct Committee, 2013-2014
- Faculty Senate On-Line Review Committee, 2013-2014
- Graduate Student Academic Grievance and Misconduct Committee, 2012-2013
- Faculty Senate On-Line Review Committee, 2012-2013
- FIU Faculty Senator, 2012-2013.
- Member Ad-Hoc committee on Oral Communication, 2012-2013.
- FIU Faculty Senator, 2011-2012.
- University Library Committee Liaison for College of Engineering and Computing 2010-2011.
- University Library Committee Liaison for College of Engineering and Computing 2009-2010.
- University Library Committee Liaison for College of Engineering and Computing 2007-2008.
- SRAI Research Affiliate for the Honors College 2005 – present.
- UFF Senator 2005 – 2006.

**College Service:**

- College of Engineering and Computing Faculty Council – SCIS Representative and Chair, 2015-2016.
- College of Engineering and Computing Faculty Council – SCIS Representative, 2014-2015.
- College of Engineering and Computing Awards committee - Chair and Representative for SCIS, 2012-2013.
- College of Engineering and Computing Awards committee - Chair and Representative for SCIS, 2011-2012.
- College of Engineering and Computing Awards committee - Chair and Representative for SCIS, 2010-2011.
- College of Engineering and Computing Library Committee – Chair and Representative for SCIS, 2010- 2011.
- College of Engineering and Computing Library Committee – Chair and Representative for SCIS, 2009- 2010.
- College of Engineering and Computing Library Committee - Representative for SCIS, 2008- 2009.
- College of Engineering and Computing Library Committee - Representative for SCIS, 2007- 2008.

**SCIS Service:**

- UPE Honors Society Faculty Advisor 2016 - 2017
- SCIS Ad-hoc Committee Faculty Merit Raises 2016-2017
- Peer Teaching Evaluator 2016 - 2017
- Infrastructure Committee, Chair, 2016 - 2017
- Software Engineering Course Subcommittee, 2016 - 2017
- SCIS Graduate Committee, 2016-2017
- SCIS Ad-hoc Committee Faculty Merit Raises 2015-2016
- Peer Teaching Evaluator (2 peers) 2015 - 2016
- UPE Honors Society Faculty Advisor 2015 - 2016
- SCIS Human Resource Committee - Chair 2014 - 2015
- UPE Honors Society Faculty Advisor 2014 - 2015.
- SCIS Faculty Search Committee – Member 2013 - 2014
- SCIS Human Resource Committee 2013 - 2014
- UPE Honors Society Faculty Advisor 2013 - 2014.
- Software engineering course coordinator, SCIS, FIU 2012 - 2013
- SCIS Human Resource Committee 2012 - 2013
- UPE Honors Society Faculty Advisor 2012 - 2013.
- SCIS Annual Awards Committee 2012 – 2013
- SCIS Faculty Search Committee – Member 2012 - 2013
- Software engineering course coordinator, SCIS, FIU 2011 - 2012.

- UPE Honors Society Faculty Advisor 2011 - 2012.
- SCIS Faculty Search Committee – Member 2011 - 2012
- SCIS Director Search Committee – Member, 2010 - 2011.
- UPE Honors Society Faculty Advisor 2010 - 2011.
- Software engineering course coordinator, SCIS, FIU 2010 - 2011.
- SCIS Annual Awards Committee 2009 – 2010.
- SCIS Peer Teaching Evaluation Committee 2009 – 2010.
- Undergraduate committee 2009 – 2010.
- Software engineering course coordinator, SCIS, FIU 2009 - 2010.
- UPE Honors Society Faculty Advisor 2009 - 2010.
- Undergraduate committee 2008 - 2009
- Software engineering course coordinator, SCIS, FIU 2008 - 2009.
- UPE Honors Society Faculty Advisor 2008 - 2009.
- Undergraduate committee 2007 - 2008
- Software engineering course coordinator, SCIS, FIU 2007 - 2008.
- UPE Honors Society Faculty Advisor 2007 - 2008.
- Undergraduate curriculum committee, SCS, FIU 2006 -2007.
- Infrastructure Committee, SCIS, FIU 2006-2007
- Software engineering course coordinator, SCIS, FIU 2006 - 2007.
- Equipment committee 2005 - 2006.
- Software engineering course coordinator, SCIS, FIU 2005 - 2006.
- Software engineering course coordinator, SCIS, FIU 2004 - 2005.
- Undergraduate curriculum committee, SCS, FIU 2004 -2005.

### **Professional Service:**

#### Grant Reviews:

- Two (2) NSF Review Panel 2017
- Two (2) NSF Review Panel 2016
- Natural Sciences and Engineering Research Council (NSERC) of Canada 2015
- Two (2) NSF Review Panels 2015
- Natural Sciences and Engineering Research Council (NSERC) of Canada 2014
- Reviewer for Maryland Industrial Partnerships Program (a program at University of Maryland, College Park) 2014
- NSF Review Panel 2012.
- NSF Review Panel 2011.
- Two (2) NSF Review Panels 2010.
- Two (2) NSF Review Panels 2009.
- NSF Review Panel 2008.
- Two (2) NSF Review Panels 2006.
- NSF Review panel 2005

Associate Editor / Editorial Board Member

- International Journal of Software Engineering. ACTA Press.
- Guest editor for the Special Issue of the Journal of Computer Science Education: Software Modeling in Education. 2011.
- Guest Editor for the Special Issue on “High Assurance Systems Engineering” in Software Quality Journal, 2016.

#### Program Co-Chair

- Program Co-Chair for the 15th IEEE International Symposium on High Assurance Systems Engineering (HASE 2014). Miami, Florida, USA: January 9 - 11, 2014.

#### Workshop Co-Chair

- Third Workshop on Using Learning and Engagement Strategies in Software Engineering and Programming Courses (LESSEP 17-2). Funded by NSF an IUSE - Engaged Student Learning - Design and Development Level II: grant (DUE-1525112). ASEE Conference and Exposition, June 28th 2017.
- Second Workshop on Using Learning and Engagement Strategies in Software Engineering and Programming Courses (LESSEP 17-1). Funded by NSF an IUSE - Engaged Student Learning - Design and Development Level II: grant (DUE-1525112). FIU June 2nd and 3rd 2017.
- Coordinated mini-workshop on Learning Objects for PIs on the NSF grant DUE-1525112. FIU October 14<sup>th</sup> and 15th, 2016.
- First Workshop on Using Learning and Engagement Strategies in Software Engineering and Programming Courses (LESSEP 16). Funded by NSF an IUSE - Engaged Student Learning - Design and Development Level II: grant (DUE-1525112). FIU June 10th and 11th 2016.
- Coordinated PI mini-workshop on Learning and Engagement Strategies for PIs on the NSF grant DUE-1525112. FIU October 23rd and 24th, 2015.
- Sixth Workshop on Integrating Software Testing into Programming Courses (WISTPC 2015). Funded by NSF TUES Phase II grant (DUE-1225742). FIU June 12th and 13th 2015.
- Fifth Workshop on Integrating Software Testing into Programming Courses (WISTPC 2014:2). Funded by NSF TUES Phase II grant (DUE-1225742). FIU July 18th and 19th 2014.
- Fourth Workshop on Integrating Software Testing into Programming Courses (WISTPC 2014:1), Workshop #4 at Special Interest Group on Computing Education Conference (SIGCSE 2014).
- Third Workshop on Integrating Software Testing into Programming Courses (WISTPC 2013). Funded by NSF TUES Phase II grant (DUE-1225742). FIU July 12th and 13th 2013.
- Coordinated a mini-workshop on WReSTT (Web-Based Repository of Software Testing Tutorials) for collaborators on the NSF grant DUE-1225742. FIU March 11th, 2013.
- Second Workshop on Integrating Software Testing into Programming Courses (WISTPC 2010). Funded by NSF CCLI Phase I grant (DUE-0736833). FIU June 23rd and 24th 2010.
- First Workshop on Integrating Software Testing into Programming Courses (WISTPC 2009). Funded by NSF CCLI Phase I grant (DUE-0736833). FIU March 16th and 17th 2009.

#### Conference Track Co-organizer:

- The Twentieth International Conference on Software Engineering and Knowledge Engineering (SEKE'08) – Track on Software Engineering of Autonomic Grid Computing Systems and Applications (AGC'08)

#### Conference Organizing Committee:

- Educators Symposium Co-Chair for the ACM/IEEE 19th International Conference on Model Driven Engineering Languages & Systems MODELS 2017, Austin Texas.
- Tool/Demonstrations Co-Chair for the ACM/IEEE 19th International Conference on Model Driven Engineering Languages & Systems MODELS 2016, Saint Malo France.
- Student Doctoral Program Chair, The 2015 IEEE International Conference on Software Quality, Reliability and Security, Vancouver, Canada, August 3-5, 2015.
- Local Organizing Co-Chair for the 15th IEEE International Symposium on High Assurance Systems Engineering (HASE 2014). Miami, Florida, USA: January 9 - 11, 2014.
- Local Organizing and Finance Chair for the ACM/IEEE 16th International Conference on Model Driven Engineering Languages & Systems MODELS 2013.
- Educators Symposium Co-Chair for the ACM/IEEE 19th International Conference on Model Driven Engineering Languages & Systems MODELS 2012.
- Publicity Co-Chair for the ACM/IEEE 15th International Conference on Model Driven Engineering Languages & Systems MODELS 2012.
- Student Papers Co-Chair the 22st IEEE International Symposium on Software Reliability Engineering (ISSRE 2011).
- Publications Chair – The 14th IASTED International Conference on Software Engineering and Applications (SEA2010).
- Committee member - International Conference on Application and Theory of Petri Nets and Other Models of Concurrency 2005 (ATPN 2005).

#### Advisory Board Member:

- SFS: Capacity Building: Collaborative Project: Cyber-Security Education for Community College Faculty in Texas. NSF DUE-1241756. Meeting March 7th 2014, at Texas Tech University.

#### Panelist:

- Doctoral symposium panelist for the ACM/IEEE 15th International Conference on Model Driven Engineering Languages & Systems MODELS 2012
- Invited panelist for ACM SIGSOFT Inspirations Workshop co-located with FSE 14 2006

#### Program Committees:

- Models@Runtime Workshop co-located at MODELS 2017 in Austin, Texas.
- Doctoral Symposium at MODELS 2017 in in Austin Texas. September, 2017
- The 3rd International Workshop on Executable Modeling, at MODELS 2017 in Austin Texas. September, 2017
- The 4th International Workshop on Interplay of Model-Driven and Component-Based Software Engineering, at MODELS 2017 in in Austin Texas. September, 2017
- The ACM/IEEE 20th International Conference on Model Driven Engineering Languages and Systems, 2017, Austin Texas, USA. September, 2017
- The 18th IEEE International Symposium on High Assurance Systems Engineering (HASE 2017). Singapore.

- The 17th IEEE International Conference on Information Reuse and Integration (IRI) 2016. October, 2016
- The 2nd International Workshop on Executable Modeling, at MODELS 2016 in Saint-Malo, France. October, 2016
- The 3rd International Workshop on Interplay of Model-Driven and Component-Based Software Engineering, at MODELS 2016 in Saint-Malo, France. October, 2016
- The Educator's Symposium co-located at MODELS 2016 in Saint-Malo, France. October, 2016
- The ACM/IEEE 19th International Conference on Model Driven Engineering Languages and Systems, 2016, Saint-Malo, France. October, 2016
- The Ninth International Conference on Dependability, DEPEND 2016, an INRIA sponsored conference. July 2016.
- The Eleventh International Conference on Software Engineering Advances, ICSEA 2016. August 2016.
- The 7th International Workshop on Emerging Trends in Software Metrics.
- The 17th IEEE International Symposium on High Assurance Systems Engineering (HASE 2016). Orlando, Florida, USA.
- The Educator's Symposium co-located at MODELS 2015 in Ottawa, Canada.
- Models@Runtime Workshop co-located at MODELS 2015 in Ottawa, Canada.
- The ACM/IEEE 18th International Conference on Model Driven Engineering Languages and Systems, 2015, Ottawa, Canada.
- The 16th IEEE International Conference on Information Reuse and Integration (IRI) 2015.
- The 6th International Workshop on Emerging Trends in Software Metrics, co-located with ICSE 2015.
- The 15th IEEE International Conference on Information Reuse and Integration (IRI) 2014.
- The Seventh International Conference on Dependability, DEPEND 2014, an INRIA sponsored conference.
- The Educator's Symposium co-located at MODELS 2014 in Valencia, Spain.
- Models@Runtime Workshop co-located at MODELS 2014 in Valencia, Spain.
- The IEEE International Conference on Cloud and Autonomic Computing (CAC 2014).
- The 26th International Conference on Software Engineering and Knowledge Engineering (SEKE'14).
- Models@Runtime Workshop co-located at MODELS 2013 in Miami, FL, USA.
- The 14th IEEE International Conference on Information Reuse and Integration (IRI) 2013.
- The 22nd International conference on Software Engineering and Data Engineering (SEDE 2013)
- The Educator's Symposium co-located at MODELS 2013 in Miami Florida, USA.
- International Workshop on The Globalization of Domain Specific Languages 2013, Montpellier, France co-located with ECMFA, ECOOP and ECSA 2013
- The Sixth International Conference on Dependability, DEPEND 2013, an INRIA sponsored conference.

- The 4th International Workshop on Emerging Trends in Software Metrics (WETSoM) 2013, an ICSE 2013 Workshop
- The 25th International Conference on Software Engineering and Knowledge Engineering (SEKE'13).
- The 8th International Conference on Software and Data Technologies (ICSOFT), 2013.
- The 4th International Workshop on Emerging Trends in Software Metrics (WETSoM) 2013, an ICSE 2013 Workshop
- The 12th Workshop on Domain-Specific Modeling co-located at SPLASH 2012.
- Models@Runtime Workshop co-located at MODELS 2012 in Innsbruck, Austria.
- The IEEE International Conference on Information Reuse and Integration (IRI) 2012.
- The 24th International Conference on Software Engineering and Knowledge Engineering (SEKE'12).
- The 3rd International Workshop on Emerging Trends in Software Metrics (WETSoM) 2012, an ICSE 2012 Workshop
- The 8th Educators' Symposium co-located at MODELS 2012 in Innsbruck, Austria.
- The 7th International Conference on Software and Data Technologies (ICSOFT), 2012.
- The 21th International conference on Software Engineering and Data Engineering (SEDE 2012).
- The IEEE Signature Conference on Computers, Software and Applications (COMPSAC) 2012.
- Models@Runtime Workshop co-located at MODELS 2011 in Wellington New Zealand.
- The 7th Educator's Symposium co-located at MODELS 2011 in Wellington New Zealand.
- The 22nd IEEE International Symposium on Software Reliability Engineering (ISSRE 2011).
- The IEEE International Conference on Information Reuse and Integration (IRI) 2011.
- The 23rd International Conference on Software Engineering and Knowledge Engineering (SEKE'11).
- The 6th International Conference on Software and Data Technologies (ICSOFT), 2011.
- The 20th International conference on Software Engineering and Data Engineering (SEDE 2011).
- The 14th IASTED International Conference on Software Engineering and Applications, SEA 2010.
- Models@Runtime Workshop co-located at MODELS 2010 in Oslo Norway.
- The IEEE International Conference on Information Reuse and Integration (IRI) 2010.
- The 22th International Conference on Software Engineering and Knowledge Engineering (SEKE'10).
- The 21st IEEE International Symposium on Software Reliability Engineering (ISSRE 2010).
- The 5th International Conference on Software and Data Technologies (ICSOFT), 2010.
- The 5th Educator's Symposium MODELS 2009 in Denver.
- Models@Runtime Workshop co-located at MODELS 2009 in Denver.
- Workshops committee for MODELS 2009 in Denver USA.

- The 5th ACIS International Conference on Software Engineering Research, Management & Applications (SERA) 2009.
- The 21th International Conference on Software Engineering and Knowledge Engineering (SEKE'09).
- The 4th International Conference on Software and Data Technologies (ICSOFT), 2009.
- The IEEE International Conference on Information Reuse and Integration (IRI) 2009.
- The 12th IASTED International Conference on Software Engineering and Applications, SEA 2008.
- The 10th International Conference on Formal Engineering Methods (ICFEM), 2008.
- The IEEE International Conference on Information Reuse and Integration (IRI) 2008.
- The 20th International Conference on Software Engineering and Knowledge Engineering (SEKE'08).
- The 9th International Conference on Software Engineering, Artificial Intelligence, Networking, and Parallel/Distributed Computing in 2008 (SNPD2008).
- The 3rd International Conference on Software and Data Technologies (ICSOFT), 2008.
- The 2007 International Conference on Software Engineering Theory and Practice (SETP-07).
- The IEEE International Conference on Information Reuse and Integration (IRI) 2007.
- The 5th ACIS International Conference on Software Engineering Research, Management & Applications (SERA) 2007.
- The 11th IASTED International Conference on Software Engineering and Applications, SEA 2007.
- The 2nd International Conference on Software and Data Technologies (ICSOFT), 2007.
- The 1st International Conference on Software and Data Technologies, 2006.
- The 4th ACIS International Conference on Software Engineering Research, Management & Applications (SERA) 2006.
- IEEE International Conference on Information Reuse and Integration (IRI) 2006.
- The 44th ACM Southeast Conference (ACMSE 2006).
- The 3rd ACIS International Conference on Software Engineering Research, Management & Applications (SERA) 2005.
- IEEE International Conference on Information Reuse and Integration (IRI) 2005.

Reviewer:

#### Book Chapter

- LNCS State-of-the-Art Survey Volume on Models@run.time, 2012.
- Formal and Practical Aspects of Domain-Specific Languages: Recent Developments, 2012.
- Recent Trends in Information Reuse and Integration., 2010

#### Journals

- IEEE Transaction on Big Data, 2016, 2017
- Journal of Software: Evolution and Process, 2016, 2017.
- IEEE Transaction on Engineering Education, 2016, 2017
- Advances in Software Engineering, 2015

- Journal of Information and Software Technology, 2015, 2016.
- Journal of Computer Languages, Systems and Structures, 2014, 2017
- Journal of Software Engineering Applications (JSEA), 2014
- IEEE Computer, 2013
- ACM Transactions on Computing Education, 2013
- IEEE Transactions in Software Engineering, 2012, 2014, 2016, 2017
- Journal Technology for Education and Learning, ACTA Press. 2012.
- Journal of Software and System Modeling. 2011, 2012, 2014, 2015.
- Journal of Software Testing, Verification and Reliability. 2009, 2016
- Transactions on Aspect Oriented Software Development (TAOSD) Special Issue on Aspects and MDE. 2008
- Journal of Systems and Software, 2008, 2009, 2010, 2011, 2012
- International Journal of Software Engineering and Knowledge Engineering. 2007, 2010

#### Conferences/Workshops

- The 123rd American Society for Engineering Education (ASEE) Annual Conference (2017)
- The 48th ACM Technical Symposium on Computer Science Education (SIGCSE 2017)
- 2016 American Society for Engineering Education (ASEE) Annual Conference
- The 47th ACM Technical Symposium on Computer Science Education (SIGCSE 2016)
- 2015 American Society for Engineering Education (ASEE) Annual Conference
- The 29th IEEE/ACM International Conference on Automated Software Engineering.
- 2014 American Society for Engineering Education (ASEE) Annual Conference
- The 45th ACM Technical Symposium on Computer Science Education (SIGCSE 2014)
- The 19th Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2014)
- The 44th ACM Technical Symposium on Computer Science Education (SIGCSE 2013)
- The 18<sup>th</sup> Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2013)
- The 23rd IEEE International Symposium on Software Reliability Engineering (ISSRE 2012) – Fast Abstracts.
- The 43rd ACM Technical Symposium on Computer Science Education (SIGCSE 2012)
- The 16<sup>th</sup> Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2011)
- The 42st ACM Technical Symposium on Computer Science Education (SIGCSE 2011)
- The 15<sup>th</sup> Annual Conference on Innovation and Technology in Computer Science Education (ITiCSE 2010)

- The 48th ACM Southeast Conference (ACMSE 2010).
- Third International Conference of Software Testing, Verification and Validation, (ICST 2010)
- The 41st ACM Technical Symposium on Computer Science Education (SIGCSE 2010)
- The 14<sup>th</sup> Annual Conference on Innovation and Technology in Computer Science Education (2009)
- ACM/IEEE 11th International Conference on Model Driven Engineering Languages and Systems, 2008.
- The 39<sup>th</sup> ACM Technical Symposium on Computer Science Education conference.
- The 45th ACM Southeast Conference (ACMSE 2007).
- The IEEE Southeast Conference 2006.
- The IEEE Southeast Conference 2005.

Other:

- External evaluator for Tenure and Promotion – Department of Computer and Information Science, Indiana University Purdue University Indianapolis, August, 2014
- Session Chair 2014 American Society for Engineering Education (ASEE) Annual Conference
- Reviewer for Florida Undergraduate Research Conference (FURC) 2014
- External evaluator for Tenure and Promotion – Michigan Technological University, January, 2010.
- Session Chair for the Technical Symposium on Computer Science Education, ACM SIGCSE 2006.
- Session co-chair for the IASTED International Conference on Software Engineering Applications 2004.

**Community-Bases Activities:**

- Judge South Florida Science and Engineering Fair, 2017.
- Coordinated the Awards Ceremony for the Sweetwater Elementary School Robotics after School Program, 2011.
- Judge ACM High School Programming Competition 2007.
- Judge ACM High School Programming Competition 2006.
- Judge ACM High School Programming Competition 2004.
- Judge Broward County Science Fair 2004.
- Judge for the Information and Technology awards 2003.