# CURRICULUM VITAE ET STUDIORUM AND OF THE SCIENTIFIC AND ACADEMIC ACTIVITIES OF PROF. GIUSEPPE SCANNIELLO

## **Biographical Sketch**

Prof. Giuseppe Scanniello was born in Maratea (PZ), Italy, on 5/1/1975. He received the Laurea degree in Computer Science from the University of Salerno, Italy, in 2001, and the Ph.D. in Computer Science from the same university in 2005.

From 2001 to 2005 he was a Ph.D. student at the Department of Mathematics and Computer Science of the University of Salerno (Italy) under the supervision of prof. Andrea De Lucia and prof. Gennaro Costagliola. From 07/01/2004 to 06/30/2005 he was a research fellow at "Centro di Eccellenza sulle Tecnologie del Software" at the University of Sannio (BN), Italy.

In 2006 he joined the Department of Mathematics, Computer Science, and Economics at the University of Basilicata, Potenza (Italy), where he was an Assistant Professor from 2006 to 2015. He is currently an Associate Professor at this University.

Prof. Giuseppe Scanniello obtained the Italian National Scientific Qualification as Full Professor in Computer Science. He is the President of the Infrastructure Center and ICT Systems at the University of Basilicata, where he also found and lead the BASE (BAsilicata Software Engineering) Lab.

Prof. Giuseppe Scanniello has been a member of IEEE, ACM, and IEEE Computer Society.

#### **Scientific Interests**

The research activity of prof. Giuseppe Scanniello is mainly concerned with the Software Engineering field. During his research, he also dealt with issues related to the design and construction of languages and visual interfaces for software engineering environments and support for e-learning and collaborative work, with particular reference to adaptive learning processes, and workflow management. Recently, he is working in the field of data science and user-centric experimentation with a specific focus on peopleware (a term used to refer to one of the three core aspects of computer technology, the other two being hardware and software). The main research interests of prof. Giuseppe Scanniello can be classified as follows:

- 1. Empirical software engineering
- 2. Peopleware and developer-centric assessment
- 3. Human-centric investigations and interaction
- 4. Data science
- 5. Software verification and validation with specific focus on testing and regression testing
- 6. Migration and maintenance of inherited/legacy software systems
- 7. Environments for maintenance and reverse engineering of software systems
- 8. Visual languages for software engineering and modeling
- 9. Methods and tools to support processes and cooperative work
- 10. Environments for the definition, design and use of e-learning processes
- 11. Trusted software systems

For each of the above-mentioned interests, theoretical, methodological, and technological objectives have been pursued. In particular, the theoretical objectives have materialized in the definition of models, algorithms, and methods to support the problems inherent to the interests listed above, while the methodological objectives have led to the definition of organizational paradigms on which to base the preparation of their typical processes. The definition of the theoretical models and organizational paradigms has been constantly accompanied by the technological research of the characterization of software tools supporting these processes, and by their prototypal implementation. These tools have been tested, through the preparation of empirical evaluations (e.g., case studies, case-control studies, controlled experiments, focus-group studies, survey, interviews, and so on) in the context of applied and non-applied research projects, often conducted in collaboration with software companies, with the final goal to transfer (or at least to promote the transferring of) the developed technologies to the practitioners.

The scientific and research activities concerned with the research interests of prof. Giuseppe Scanniello might be proved by the following references to his main journal and conference publications.

## Ph.D. Thesis

[T1] G. Scanniello "Methods and Tools for E-Learning Processes", Advisors: prof. Gennaro Costagliola and prof. Andrea De Lucia.

#### **International Journal Papers (with review)**

- [R1] C. Politowski; F. Khomh; S. Romano; G. Scanniello; F. Petrillo; Y.G. Gueheneuc; and A. Maiga: "A Large-Scale Empirical Study of the Impact of Spaghetti Code and Blob Anti-patterns on Program Comprehension" In International Journal on Information & Software Technology, Elsevier, doi.org/10.1016/j.infsof.2020.106278, Vo. 122, June 2020,
- [R2] C. Coviello, S. Romano, G. Scanniello, A. Marchetto, A. Corazza, and G. Antoniol: "Adequate vs. Inadequate Test Suite Reduction Approaches" In International Journal on Information & Software Technology, Elsevier, 2020, doi.org/10.1016/j.infsof.2019.106224, Vo.119.
- [R3] S. Romano, N. Capece, U. Erra, G. Scanniello, and M. Lanza: "On the Use of Virtual Reality in Software Visualization: The Case of the City Metaphor" In International Journal on Information & Software Technology, Elsevier, doi.org/10.1016/j.infsof.2019.06.007, Vo. 114, pp. 92-106.
- [R4] S. Romano, N. Capece, U. Erra, G. Scanniello, and M. Lanza: "The city metaphor in software visualization: feelings, emotions, and thinking" In International Journal on Multimedia Tools and Applications, Springer, 10.1007/s11042-019-07748-1, 2019, Vo.78, No. 23, pp. 33113-33149.
- [R5] S. Romano, C. Vendome, G. Scanniello, and D. Poshyvanyk: "A Multi-study Investigation into Dead Code" In IEEE Transactions on Software Engineering, IEEE, 10.1109/TSE.2018.2842781, 2020, Vo. 46, No. 1, pp. 71-99.
- [R6] D. Fucci, G. Scanniello, S. Romano, and Natalia Juristo: "Need for Sleep: The Impact of a Night of Sleep Deprivation on Novice Developers' Performance" In IEEE Transactions on Software Engineering, IEEE, 10.1109/TSE.2018.2834900, 2020, Vo. 46, No. 1, pp. 1-19.
- [R7] S. Romano, G. Scanniello, G. Antoniol, and A. Marchetto: "SPIRITUS: A SimPle Information Retrieval regression Test Selection approach" In International Journal on Information & Software Technology, Elsevier, doi: 10.1016/j.infsof.2018.03.004, 2018, Vol. 99, pp. 62-80.
- [R8] U. Erra, G. Scanniello, and V. Colonnese: "Exploring the effectiveness of an Augmented Reality Dressing Room", In International Journal on Multimedia Tools and Applications, Springer, doi.org/10.1007/s11042-018-5758-2, 2018, Vo.77, No. 19, pp. 25077-25107.
- [R9] G. Scanniello, C. Gravino, M. Genero, J. A. Cruz-Lemus, G. Tortora, M. Risi, and G. Dodero: "Do Software Models Based on the UML Aid in Source-Code Comprehensibility? Aggregating Evidence from 12 Controlled Experiments", In International Journal on Empirical Software Engineering, Springer, 2018, doi.org/10.1007/s1066, Vo. 23, No5, pp. 2279-2322. (Scopus ID= 2-s2.0-85045073158)
- [R10] Y. Zhang, D. Lo, X. Xia, G. Scanniello, T.-D. B. Le; and J. Sun: "Fusing Multi-Abstraction Vector Space Models for Concern Localization" In International Journal on Empirical Software Engineering, Springer, 2018, doi: 10.1007/s10664-017-9585-2, Vo. 23, No.4, pp. 2279-2322.
- [R11] A. Marchetto, G. Scanniello, and A. Susi: "Combining Code and Requirements Coverage with Execution Cost for Test Suite Reduction" In IEEE Transactions on Software Engineering, IEEE, doi: 10.1109/TSE.2017.2777831, Vo. 45, No. 4, pp. 363-390.
- [R12] G. Scanniello, M. Risi, P. Tramontana, and S. Romano: "Fixing Faults in C and Java Source Code: Abbreviated vs. Full-Word Identifier Names" In ACM Transactions on Software Engineering and Methodology, ACM, doi: 10.1145/3104029, Vol. 26 No. 2, July 2017, pp. 6:1-6:43.
- [R13] S. Romano, D. Fucci, G. Scanniello, B. Turhan, and N. Juristo: "Findings from a Multi-method Study on Test-driven Development," In International Journal on Information & Software Technology, Elsevier, doi: http://dx.doi.org/10.1016/j.infsof.2017.03.010, Vol. 89, pp. 64-77.
- [R14] Anna Corazza, Valerio Maggio, and Giuseppe Scanniello: "Coherence of Comments and Method Implementations: A Dataset and an Empirical Investigation", In Software Quality Journal, Springer, doi: 10.1007/s11219-016-9347-1, Vol. 26, No 2, June 2018, pp. 751-777.
- [R15] R. Francese, M. Risi, G. Scanniello, and G. Tortora: "Proposing and Assessing a Software Visualization Approach Based on Polymetric Views" In International Journal of Visual Languages & Computing, Elsevier, doi: 10.1016/j.jvlc.2016.05.001, 2016, Vol 34-35, pp. 11-24.
- [R16] M. Torchiano, G. Scanniello, F. Ricca, G. Reggio, and M. Leotta: "Do UML Object Diagrams Affect Design Comprehensibility? Results from a Family of Four Controlled Experiments", In International Journal of Visual Languages & Computing, Elsevier, DOI: doi.org/10.1016/j.jvlc.2017.06.002, Vol 41, August, 2017, pp. 10–21.
- [R17] A. Marchetto, M. M. Islam, W. Asghar, A. Susi, and G. Scanniello: "A Multi-Objective Technique to Prioritize Test Cases" On Transactions on Software Engineering, IEEE, doi: doi.ieeecomputersociety.org/10.1109/TSE.2015.2510633, Vo. 40, No. 10, 2016, pp. 918-940.
- [R18] R. Francese, C. Gravino, M. Risi, G. Scanniello, and G. Tortora: "Using Project-Based-Learning in a Mobile Application Development Course: An Experience Report" In International Journal of Visual Languages & Computing, Elsevier, doi:10.1016/j.jvlc.2015.10.019, 2015, Vol. 31, pp. 196-205.
- [R19] G. Scanniello, C. Gravino, M. Risi, G. Tortora, and G. Dodero: "Documenting Design-Pattern Instances: A Family of Experiments on Source Code Comprehensibility" In ACM Transactions on Software Engineering and Methodology, ACM, DOI: dx.doi.org/10.1145/2699696, 2015, Vol. 24, No. 3, Article 14, pp. 14:1-14:35.

- [R20] A. Corazza, S. Di Martino, V. Maggio, and G. Scanniello: "Weighing Lexical Information for Software Clustering in the Context of Architecture Recovery", In International Journal on Empirical Software Engineering, Springer, DOI:10.1007/s10664-014-9347-3, 2016, Vol. 21 No. 1, pp. 72-103.
- [R21] G. Scanniello, A. Marcus, and D. Pascale: "Link Analysis Algorithms for Static Concept Location: An Empirical Assessment" In International Journal on Empirical Software Engineering, DOI: 10.1007/s10664-014-9327-7, Springer, Vol. 20, No. 6, 2015 pp 1666–1720.
- [R22] G. Scanniello, U. Erra, G. Caggianese, and C. Gravino: "On the Effect of Exploiting GPUs for a More Eco-sustainable Lease of Life" in International Journal of Software Engineering and Knowledge Engineering, World Scientific Publishing Company, DOI: 10.1142/S0218194015500023, Vol. 25, No. 1, 2015, pp. 169-195.
- [R23] G. Reggio, F. Ricca, G. Scanniello, F. Di Cerbo, and G. Dodero: "On the Comprehension of Workflows Modeled with a Precise Style: Results from a Family of Controlled Experiments" In Journal of Software and Systems Modeling, Springer, DOI: 10.1007/s10270-013-0386-9, Software and System Modeling, Vol. 14, No. 4, 2015, pp. 1481-1504.
- [R24] J. Gonzalez-Huerta, E. Insfran1, S. Abrahão, and G. Scanniello: "Validating a Model-Driven Software Architecture Evaluation and Improvement Method: A Family of Experiments" In International Journal on Information & Software Technology, Elsevier, DOI:10.1016/j.infsof.2014.05.018, Vol. 57, 2015, pp. 405-429.
- [R25] C. Gravino, G. Scanniello, and G. Tortora: "Source Code Comprehension Tasks Supported by UML Design Models: Results from a Controlled Experiment and a Differentiated Replication" In International Journal of Visual Languages & Computing, Elsevier, DOI: dx.doi.org/10.1016/j.jvlc.2014.12.004, Vol. 28, No. 01, 2015, pp. 23-38.
- [R26] F. Ricca, G. Scanniello, M. Torchiano, G. Reggio, and E. Astesiano: "Assessing the Effect of Screen Mockups on the Comprehension of Functional Requirements" In ACM Transactions on Software Engineering and Methodology, ACM, DOI: 10.1145/2629457, Vol. 24, No. 1, 2014, pp 1:1--1:38.
- [R27] L. Mazzeo and G. Scanniello: "A Text Retrieval Approach to Recover Links among E-Mails and Source Code Classes" In International Journal On Advances in Software, Vol. 7, No. 1&2, 2014.
- [R28] P. Lago, R. Kazman, N. Meyer, M. Morisio, H. Müller, P. Paulisch, and G. Scanniello "Leveraging "energy efficiency to software users". in ACM SIGSOFT Software Engineering Notes, DOI: 10.1145/2557833.2557859, Vol. 39, No. 1, 2014, pp. 36-38.
- [R29] Lucia, D. Lo, G. Scanniello, A. Marchetto, N. Ali, and C. McMillan: "Leveraging machine learning and information retrieval techniques in software evolution tasks. In ACM SIGSOFT Software Engineering Notes, DOI: 10.1145/2557833.2560584, Vol. 39, No. 1, 2014, pp. 1-2.
- [R30] G. Scanniello and U. Erra: "Distributed Modeling of Use Case Diagrams with a Method Based on Think-Pair-Square: Results from Two Controlled Experiments," In International Journal of Visual Languages & Computing, Elsevier, DOI: dx.doi.org/10.1016/j.jvlc.2014.03.002, Vol. 25, No. 4, pp. 494-517.
- [R31] G. Scanniello, C. Gravino, M. Genero, J. A. Cruz-Lemus, and G. Tortora: "On the Impact of UML Analysis Models on Source Code Comprehensibility and Modifiability". In Transactions on Software Engineering and Methodology, ACM, DOI: dx.doi.org/10.1145/2591912, Vol. 23, No. 2, Article 13, 2014, pp. 13:1, 13:26.
- [R32] D. Distante, M. Risi, and G. Scanniello: "Enhancing Navigability in Websites Built Using Web Content Management Systems" In International Journal of Software Engineering and Knowledge Engineering, World Scientific Press, DOI: 10.1142/S0218194014500193, Vol. 24, No. 03, 2014.
- [R33] G. Scanniello, F. Fasano, A. De Lucia, and G. Tortora: "Does Software Error/Defect Identification Matter in the Italian Industry?" In IET Software, ISSN 1751-8806 DOI: 10.1049/iet-sen.2011.0170, Vol. 7, No. 2, April, 2013, pp. 76 84.
- [R34] P. Lago, R. Kazman, N. Meyer, M. Morisio, H. Müller, P. Paulisch, and G. Scanniello: "Exploring initial challenges for green software engineering: summary of the first GREENS workshop, at ICSE 2012", In Software Engineering Notes, ACM, pp. 3, 2013, Vol. 38, ISSN: 0163-5948, DOI:10.1145/2413038.2413062, 2013, pp. 31-33.
- [R35] S. Abrahão, C. Gravino, E. Insfran, G. Scanniello, and G. Tortora: "Assessing the Effectiveness of Sequence Diagrams in the Comprehension of Functional Requirements: Results from a Family of Five Experiments" In Transactions on Software Engineering, DOI: 10.1109/TSE.2012.27, Vol. 39, No. 3, March 2013, pp. 327-342.
- [R36] M. Risi, G. Scanniello, and G. Tortora: "Using Fold-in and Fold-out in the Architecture Recovery of Software Systems" In Formal Aspects of Computing (Applicable Formal Methods), Springer Press, Vol. 24, No. 3, DOI: 10.1007/s00165-011-0199-y, 2012, pp. 307-330
- [R37] A. De Lucia, F. Fasano, G. Scanniello, and G. Tortora: "Improving Artefact Quality Management in ADAMS with Distributed Inspection" In IET Software, Vol. 5, No. 6, 2011, DOI: 10.1049/iet-sen.2010.0108, pp. 510-527.
- [R38] G. Scanniello, A. D'Amico, C. D'Amico, and T. D'Amico: "Architectural Layer Recovery for Software System Understanding and Evolution" In Software Practice and Experience, John Wiley & Sons, September 2010, Vol. 40, No. 10, DOI: 10.1002/spe.988, pp. 897-916.

- [R39] U. Erra and G. Scanniello: "Assessing Communication Media Richness in Requirements Negotiation" In IET Software, 2010, Vol. 4, No. 2, DOI:10.1049/iet-sen.2009.0052, pp. 134–148.
- [R40] M. Giordano, G. Polese, G. Scanniello, and G. Tortora: "A System For Visual Role-Based Policy Modelling" In International Journal of Visual Languages & Computing, Vol. 20, No. 1, February 2010, Elsevier, DOI:10.1016/j.jvlc.2009.11.002, pp. 41-64.
- [R41] G. Scanniello, D. Distante, and M. Risi: "An Approach and an Eclipse Based Environment for Enhancing the Navigation Structure of Web Sites" In International Journal on Software Tools for Technology Transfer, Springer Press, Vol.11, No.6, December, 2009, DOI: 1007/s10009-009-0125-2, pp. 419-515.
- [R42] A. De Lucia, M. Risi, G. Scanniello, and G. Tortora: "An Investigation of Clustering Algorithms in the Identification of Similar Web Pages" In International Journal of Web Engineering, Rinton Press 2009. Vol. 8, No.4, December, pp. 346-370.
- [R43] A. De Lucia, F. Fasano, G. Scanniello, and G. Tortora: "Evaluating Distributed Inspection through Controlled Experiments" In IET Software, Vol. 3; No 5, October 2009, DOI: 10.1049/iet-sen.2008.0101, pp. 381-394.
- [R44] M. Colosimo, A. De Lucia, G. Scanniello, and G. Tortora: "Evaluating Legacy System Migration Technologies through Empirical Studies" In International Journal on Information and Software Technology, Elsevier, Vol. 51, No. 2, February 2009, DOI: 10.1016/j.infsof.2008.05.012, pp. 433–447.
- [R45] G. Costagliola, A. De Lucia, F. Ferrucci, C. Gravino, and G. Scanniello: "Assessing the Usability of a Visual Tool for the definition of E-learning Processes" In International Journal of Visual Languages & Computing, Vol. 19, No. 9, 2008, Elsevier, DOI: 10.1016/j.jvlc.2008.01.003, (available at http://dx.doi.org/10.1016/j.jvlc.2008.01.003), pp.: 721–737.
- [R46] A. De Lucia, R. Francese, and G. Scanniello, and G. Tortora: "Developing Legacy System Migration Methods and Tools for Technology Transfer" In Software: Practice and Experience, Vol. 38, No.13, November 2008, John Wiley & Sons, Ltd, DOI: 10.1002/spe.870, pp.: 1333-1364.
- [R47] A. De Lucia, G. Scanniello, and G. Tortora: "Identifying Similar Pages in Web Applications using a Competitive Clustering Algorithm" In International Journal on Software Maintenance and Evolution, Vol. 19, No. 5, September-October 2009, John Wiley & Sons, Ltd., DOI: 10.1002/smr.v19:5, pp.: 281-296.
- [R48] A. De Lucia, F. Fasano, G. Scanniello, and G. Tortora: "Enhancing Collaborative Synchronous UML Modelling with Fine-grained Versioning of Software Artefacts" In International Journal of Visual Languages & Computing, Vol. 18, No. 5, 2007, Elsevier, DOI: 10.1016/j.jvlc.2007.08.005, pp 492-503.
- [R49] G. Casella, G. Costagliola, F. Ferrucci, G. Polese, and G. Scanniello: "A SCORM Thin Client Architecture for e-learning Systems based on Web Services". In International Journal of Distance Education Technologies, Vol. 5, No. 1, January-March, 2007, IDEA Group Publishing, pp.: 13-30.
- [R50] A. De Lucia, R. Francese, G. Scanniello, and G. Tortora "Identifying Cloned Navigational Patterns in Web Applications". In International Journal of Web Engineering Vol. 5, No.2, June 1, 2006, Rinton Press, pp.:150-174.
- [R51] G. Costagliola, F. Ferrucci, G. Polese, and G. Scanniello: "A Visual Language Based System for Designing and Presenting E-learning Courses". In International Journal of Distance Education Technologies, Vol. 3; No.1; 2005, January-March, IDEA Group Publishing, pp.: 1-19.
- [R52] G. Costagliola, R. Francese, and G. Scanniello: "A Visual System Supporting Software Reuse in the Banking Legacy System Context". In International Journal of Software Engineering and Knowledge Engineering, Vol. 13, No. 1, February, 2003, World Scientific Press, DOI: 10.1142/S0218194003001202, pp.: 83-101.

#### **International Conferences Papers (with review)**

- [C1] M. Caulo, B. Lin, G. Bavota, G. Scanniello, and M. Lanza: "Knowledge Transfer in Modern Code Review" In Proceedings of 28th IEEE/ACM International Conference on Program Comprehension (ICPC2020), to appear.
- [C2] S. Romano, G. Scanniello, M.T. Baldassarre, D. Fucci, and D. Caivano: "Results from a Replicated Experiment on the Affective Reactions of Novice Developers when Applying Test-Driven Development" In Proceedings of 21st International Conference on Agile Software Development (XP2020), to appear.
- [C3] S. Romano, D. Fucci, M.T. Teresa Baldassarre, D. Caivano, and G. Scanniello: "An Empirical Assessment on Affective Reactions of Novice Developers When Applying Test-Driven Development." In Proceedings of 20th International Conference of Product-Focused Software Process Improvement, Lecture Notes in Computer Science 11915, Springer 2019, ISBN 978-3-030-35332-2 pp. 3-19.
- [C4] Maria Caulo, Rita Francese, Giuseppe Scanniello, and Antonio Spera: "Does the Migration of Cross-Platform Apps Towards the Android Platform Matter? An Approach and a User Study." In Proceedings of 20<sup>th</sup> International Conference of Product-Focused Software Process Improvement, Lecture Notes in Computer Science 11915, Springer 2019, ISBN 978-3-030-35332-2: pp. 120-136.

- [C5] M. Caulo, R. Francese, G. Scanniello, and A. Spera: Dealing with Comprehension and Bugs in Native and Cross-Platform Apps: A Controlled Experiment. In Proceedings of 20<sup>th</sup> International Conference of Product-Focused Software Process Improvement, Lecture Notes in Computer Science 11915, Springer 2019, ISBN 978-3-030-35332-2: pp.677-693.
- [C6] M. Caulo and G. Scanniello: "On the Use of Commit Messages to Support the Creation of Datasets for Fault Prediction: An Empirical Assessment." In Proceedings of 45<sup>th</sup> Euromicro Conference on Software Engineering and Advanced Applications, SEAA 2019, Kallithea-Chalkidiki, Greece, August 28-30, 2019. IEEE 2019, ISBN 978-1-7281-3421-5: pp. 193-198
- [C7] A. Cimasa, A. Corazza, C. Coviello, and G. Scanniello: "Word Embeddings for Comment Coherence." In Proceedings of 45<sup>th</sup> Euromicro Conference on Software Engineering and Advanced Applications, SEAA 2019, Kallithea-Chalkidiki, Greece, August 28-30, 2019. IEEE 2019, ISBN 978-1-7281-3421-5: pp. 244-25.
- [C8] M. T. Baldassarre, D. Caivano, S. Romano, and G. Scanniello: "Software Models for Source Code Maintainability: A Systematic Literature Review." In Proceedings of 45<sup>th</sup> Euromicro Conference on Software Engineering and Advanced Applications, SEAA 2019, Kallithea-Chalkidiki, Greece, August 28-30, 2019. IEEE 2019, ISBN 978-1-7281-3421-5: pp. 252-259.
- [C9] C. Coviello, S. Romano, and G. Scanniello: "An Empirical Study of Inadequate and Adequate Test Suite Reduction Approaches", In Proceedings of IEEE/ACM International Symposium on Empirical Software Engineering and Measurement, Oulu, Finland, 2018.
- [C10] S. Romano, G. Scanniello, D. Fucci, N. Juristo, and B. Turhan: "The Effect of Noise on Software Engineers' Performance", In Proceedings of IEEE/ACM International Symposium on Empirical Software Engineering and Measurement, Oulu, Finland, 2018.
- [C11] D. Fucci, S. Romano, M. T. Baldassarre, D. Caivano, G. Scanniello, B. Turhan, and N. Juristo: "A Longitudinal Cohort Study on the Retainment of Test-Driven Development", In Proceedings of IEEE/ACM International Symposium on Empirical Software Engineering and Measurement, Oulu, Finland, 2018. (Open Data Recognition award)
- [C12] S. Romano and G. Scanniello: "Exploring the Use of Rapid Type Analysis for Detecting the Dead Method Smell in Java Code." In Proceedings of 44<sup>th</sup> Euromicro Conference on Software Engineering and Advanced Applications, SEAA 2018, Prague, Czech Republic, August 29-31, 2018. IEEE Computer Society. ISBN 978-1-5386-7383-6; pp. 167-174.
- Computer Society, ISBN 978-1-5386-7383-6: pp. 167-174.

  [C13] C. Coviello, S. Romano, G. Scanniello: "CUTER: ClUstering-based test suite reduction." In Proceedings of 40<sup>th</sup> International Conference on Software Engineering: Companion Proceedings, ICSE 2018, Gothenburg, Sweden, May 27 June 03, 2018. ACM 2018, ISBN 978-1-4503-5663-32018: pp. 306-307.
- [C14] S. Romano, G. Scanniello, D. Fucci, N. Juristo, and B. Turhan: "The effect of noise on requirements comprehension." In Proceedings of 40<sup>th</sup> International Conference on Software Engineering: Companion Proceedings, ICSE 2018, Gothenburg, Sweden, May 27 June 03, 2018. ACM 2018, ISBN 978-1-4503-5663-32018: pp. 308-309.
- [C15] C. Coviello, S. Romano, G. Scanniello, A. Marchetto, G. Antoniol, and A. Corazza: "Clustering Support for Inadequate Test Suite Reduction" In Proceedings of IEEE International Conference on Software Analysis, Evolution and Reengineering, Campobasso, Italy, 2018, pp. 95-105.
- [C16] N. Capece, U. Erra, S. Romano, and G. Scanniello: "Visualising a Software System as a City Through Virtual Reality". In Proceedings on International Conference of Augmented Reality, Virtual Reality, and Computer Graphics, 2017: 319-327.
- [C17] A. Mancino and G. Scanniello: "Software Musification." In Proceedings of 21st International Conference Information Visualisation, IV 2017, London, United Kingdom, July 11-14, 2017. IEEE Computer Society, ISBN 978-1-5386-0831-92017: pp. 127-132.
- [C18] R. Francese, M. Risi, G. Scanniello, and G. Tortora: "Users' Perception on the Use of MetricAttitude to Perform Source Code Comprehension Tasks: A Focus Group Study." In Proceedings of 21st International Conference Information Visualisation, IV 2017, London, United Kingdom, July 11-14, 2017. IEEE Computer Society, ISBN 978-1-5386-0831-92017: pp. 8-1
- [C19] R. Francese, C. Gravino, M. Risi, G. Scanniello, and G. Tortora: "Mobile App Development and Management: Results from a Qualitative Investigation," In Proceedings of 3rd IEEE/ACM International Conference on 2017, Buenos Aires, Argentina.
- [C20] D. Torre, G. Procaccianti, D. Fucci, S. Lutovac, and G. Scanniello: "On the Presence of Green and Sustainable Software Engineering in Higher Education Curricula." Proceedings of IEEE/ACM International Workshop on Software Engineering Curricula for Millennials, SECM@ICSE 2017, Buenos Aires, Argentina, May 27, 2017. IEEE 2017, ISBN 978-1-5386-2795-2:pp. 54-60.
- [C21] S. Romano and G. Scanniello: "SMUG: A selective MUtant generator tool" In Proceedings of IEEE/ACM 39<sup>th</sup> International Conference on Software Engineering Companion (ICSE), 2017, pp. 19-22, DOI: 10.1109/ICSE-C.2017.12, Buenos Aires, Argentina
- [C22] R. Francese, C. Gravino, M. Risi, G. Scanniello, and G. Tortora: "Supporting Mobile Development Project-Based learning by Software Project and Product Measures", In Proceedings of the 22<sup>nd</sup>

- International Conference on Distributed Multimedia System, Salerno, Italy, 2017, pp. 41-47, DOI: 10.18293/DMS2016-045, ISBN: ISBN: 1-891706-40-3, Best Paper Award.
- [C23] Yun Zhang, David Lo, Xin Xia, Tien-Duy B. Le, G. Scanniello, and J. Sun: "Inferring Links between Concerns and Methods with Multi-Abstraction Vector Space Model" In Proceedings of the International Conference on Software Maintenance and Evolution, October 5-7. Raleigh, North Carolina, USA, 2016.
- [C24] D. Fucci, G. Scanniello, S. Romano, M. Shepperd, B. Sigweni, F. Uyaguari B. Turhan, N. Juristo, and M. Oivo: "An External Replication on the Effects of Test-driven Development Using a Multi-site Blind Analysis Approach" In Proceedings of International Conference on Empirical Software Engineering and Measurement, September 8–9, 2016, Ciudad Real, Spain, 2016, pp. 3:1-3:10. Best Paper award.
- [C25] S. Romano C. Vendome, G. Scanniello, and D. Poshyvanyk: "Are Unreachable Methods Harmful? Results from a Controlled Experiment" In Proceedings of the IEEE International Conference on Program Comprehension, Austin, Texas, May 16-17, 2016, pp.
- [C26] R. Francese, M. Risi, G. Scanniello, and G. Tortora: "LifeBook: A Mobile Personal Information Management System on the Cloud" In Proceedings of the International Working Conference on Advanced Visual Interfaces, Italy, June 7-10, Bari, 2016, pp. 184-191.
- [C27] R. Francese, C. Gravino, M. Risi, G. Tortora, and G. Scanniello: "Requirements Measures to Estimate Method Calls in Android Apps" In Proceedings of IEEE/ACM International Conference on Mobile Software Engineering and Systems, Austin, Texas, May 16-17, 2016.
- [C28] S. Romano, D. Fucci, G. Scanniello, B. Turhan, and N. Juristo, "Results from an Ethnographically-informed Study in the Context of Test-Driven Development" in Proceedings of the International Conference on Evaluation and Assessment in Software Engineering, Limerick, Ireland, 1-3 June, 2016, Highly Commended paper award.
- [C29] G. Scanniello, S. Romano, D. Fucci, B. Turhan, and N. Juristo: "Students' and professionals' perceptions of test-driven development: a focus group study." In Proceedings of 31<sup>st</sup> Annual ACM Symposium on Applied Computing, Pisa, Italy, April 4-8, 2016, pp. 1422-1427.
- [C30] S. Romano, G. Scanniello, C. Sartiani, and M. Risi "A graph-based approach to detect unreachable methods in Java software." In Proceedings of 31<sup>st</sup> Annual ACM Symposium on Applied Computing, Pisa, Italy, April 4-8, 2016, pp. 1538-1541.
- [C31] R. Francese, M. Risi, G. Scanniello, and G. Tortora: "Enhancing Polymetric Views with Coarse-Grained Views" In Proceedings of International Conference Information Visualisation, Lisbon, Portugal, 19-22 July, 2016, pp. 57-62.
- [C32] G. Scanniello, C. Gravino, G. Tortora, M. Genero, M. Risi, J. A. Cruz-Lemus, and G. Dodero: "Studying the Effect of UML-Based Models on Source-Code Comprehensibility: Results from a Long-Term Investigation" In Proceedings of 16<sup>th</sup> International Conference on Product-Focused Software Process Improvement December 2-4 Rolzano-Bozen, Italy 2015, pp. 311-327.
- Process Improvement, December 2-4, Bolzano-Bozen, Italy, 2015, pp. 311-327.

  [C33] R. Francese, M. Risi, G. Scanniello, and G. Tortora: "A Qualitative Empirical Study in the Development of Multi-platform Mobile Applications" In Proceedings of 16th International Conference on Product-Focused Software Process Improvement, HuFo (Human Factors in Software Development Processes) workshop, December 2-4, Bolzano-Bozen, Italy, 2015, pp. 471-478.
- [C34] R. Francese, M. Risi, G. Scanniello, and G. Tortora: "Model-Driven Development for Multi-platform Mobile Applications" In Proceedings of 16<sup>th</sup> International Conference on Product-Focused Software Process Improvement, December 2-4, Bolzano-Bozen, Italy, 2015, pp. 61-67.
- [C35] S. Romano and G. Scanniello: "DUM-Tool" In Proceedings of 31<sup>st</sup> International Conference on Software Maintenance and Evolution, September 29 – October 1, Breman, Germany, 2015, IEEE CS Press, pp. 339-341.
- [C36] U. Erra, G. Scanniello, and M. Caulo "Software Systems as Archipelagos of Atolls" In Proceedings of 19th International Conference on Information Visualisation, July 21-24, Barcelona, Spain, 2015, IEEE CS Press, doi: 10.1109/iV.2015.42, pp. 171-176
- [C37] R. Francese, M. Risi, and G. Scanniello "Enhancing Software Visualization with Information Retrieval" In Proceedings of 19<sup>th</sup> International Conference on Information Visualisation, July 21-24, Barcelona, Spain, 2015, IEEE CS Press, doi: 10.1109/iV.2015.42, pp. 189-194.
- [C38] R. Francese, C. Gravino, M. Risi, G. Scanniello, and G. Tortora "On the Experience of Using Git-Hub in the Context of an Academic Course for the Development of Apps for Smart Devices" In Proceedings of International Workshop on Distance Education Technologies, Vancouver, Canada, August 31 to September 2, 2015. Best Paper Award.
- [C39] R. Francese, C. Gravino, M. Risi, G. Scanniello, and G. Tortora: "On the Use of Requirements Measures to Predict Software Project and Product Measures in the Context of Android Mobile Apps: A Preliminary Study" In Proceedings of 41st Euromicro Conference on Software Engineering and Advanced Applications, August 26-28, Funchal, Madeira, Portugal, IEEE CS Press, 2015, pp. 357 – 364. Best-Paper Award Shortlist.
- [C40] A. Corazza, V. Maggio, and G. Scanniello: "On the Coherence Between Comments and Implementations in Source Code" In Proceedings of 41st Euromicro Conference on Software

- Engineering and Advanced Applications, August 26-28, Funchal, Madeira, Portugal, IEEE CS Press, 2015, pp. 76 83. Best-Paper Award Shortlist.
- [C41] P. Tramontana, M. Risi, and G. Scanniello: "Studying Abbreviated vs. Full-Word Identifier Names when Dealing with Faults: An External Replication" In Proceedings of 8<sup>th</sup> International Conference on Empirical Software Engineering and Measurement, September 18-19, Turin, Italy, ACM Press, 2014.
- [C42] G. Scanniello: "An Investigation of Object-Oriented and Code-Size Metrics as Dead Code Predictors" In Proceedings of 40<sup>th</sup> Euromicro Conference on Software Engineering and Advanced Applications, August 27-29, Verona, Italy, 2014, IEEE CS Press, pp. 392 - 397.
- [C43] E. Trillo, G. Galli Tognotta, and G. Scanniello: "Clustering for Fault Prediction with CLUFFP" In Proceedings of 40<sup>th</sup> Euromicro Conference on Software Engineering and Advanced Applications, August 27-29, Verona, Italy, 2014, IEEE CS Press, pp. 406 - 407.
- [C44] P. Lago, N. Meyer, M. Morisio, H. Müller, and G. Scanniello: "3rd International Workshop on Green and Sustainable Software" ACM 2014, June 1, 2014, ISBN 978-1-4503-2844-9
- [C45] F. Salviulo and G. Scanniello: "Dealing with Identifiers and Comments in Source Code Comprehension and Maintenance: Results from an Ethnographically-informed Study with Students and Professionals" In Proceeding of 18<sup>th</sup> International Conference on Evaluation and Assessment in Software Engineering, May 13-14, 2014, London, UK, ACM Press, pp. 423-432.
- [C46] G. Scanniello, M. Staron, H. Burden, and R. Heldal: "On the Effect of Using SysML Requirement Diagrams to Comprehend Requirements: Results from Two Controlled Experiments" In Proceeding of 18<sup>th</sup> International Conference on Evaluation and Assessment in Software Engineering, May 13-14, 2014, London, UK, ACM Press, pp. 433-442.
- [C47] G. Scanniello, C. Gravino, A. Marcus, and T. Menzies: "Class Level Fault Prediction Using Software Clustering" In Proceedings of 28<sup>th</sup> IEEE/ACM International Conference on Automated Software Engineering, November 11 - 15, 2013, Crowne Plaza Cabana in Palo Alto, California, USA, IEEE Computer Society, pp. 640-645.
- [C48] G. Scanniello and M. Risi: "Dealing with Faults in Source Code: Abbreviated vs. Full-Word Identifier Names" In Proceedings of 29<sup>th</sup> International Conference on Software Maintenance, September 22 – 28, 2013, Eindhoven, The Netherlands, IEEE Computer Society Press, pp. 190-199.
- [C49] R. Branda, A. Tolve, L. Mazzeo, and G. Scanniello: "Linking E-Mails and Source Code Using BM25F" In Proceedings of 8<sup>th</sup> International Conference on Software Engineering Advances, October 27 -November 1, 2013 - Venice, Italy, ISBN: 978-1-61208-304-9, IARIA XPS, pp. 271-277.
- [C50] A. Marchetto, Md. M. Islam, A. Susi, and G. Scanniello: "A Multi-Objective Technique for Test Suite Reduction" In Proceedings of 8<sup>th</sup> International Conference on Software Engineering Advances, October 27 - November 1, 2013 - Venice, Italy, ISBN: 978-1-61208-304-9, IARIA XPS Press, pp. 18-24.
- [C51] G. Scanniello and U. Erra: "Software Entities as Bird Flocks and Fish Schools", In Proceedings of 1st International IEEE Working Conference on Software Visualization, September 27 – 28 Eindhoven, The Netherlands, 2013, ISBN: 978-1-4799-1457-9, IEEE Computer Society Press.
- [C52] G. Scanniello, F. Ricca, M. Torchiano, C. Gravino, and G. Reggio: "Estimating the Effort to Develop Screen Mockups" In Proceedings of 39th Euromicro Conference on Software Engineering and Advanced Applications, September 4-6, Santander, Spain, 2013, DOI: 10.1109/SEAA.2013.52, IEEE Computer Society Press, pp. 341-348.
- [C53] P. Lago, N. Meyer, M. Morisio, H. Müller, and G. Scanniello: "2nd international workshop on green and sustainable software" In Proceedings of 35<sup>th</sup> International Conference on Software Engineering, May 18-26, 2013, ISBN: 978-1-4673-3076-3, IEEE/ACM, pp. 1523-1524.
- [C54] G. Scanniello, C. Gravino, and G. Tortora: "An Early Investigation on the Contribution of Class and Sequence Diagrams in Source Code Comprehension" In Proceedings of 17th European Conference on Software Maintenance and Reengineering, March 5–8, Genova, Italy, 2013, 10.1109/CSMR.2013.51, IEEE Computer Society Press, pp. 367-370.
- [C55] G. Scanniello, U. Erra, G. Caggianese, and C. Gravino: "Using the GPU to Green an Intensive and Massive Computation System" In Proceedings of 17<sup>th</sup> European Conference on Software Maintenance and Reengineering, March 5–8, Genova, Italy, 2013, DOI: 10.1109/CSMR.2013.55, IEEE Computer Society Press, pp. 384-387.
- [C56] L. Mazzeo, A. Tolve, R. Branda, and G. Scanniello: "Linking E-Mails and Source Code with LASCO", In Proceedings of 17<sup>th</sup> European Conference on Software Maintenance and Reengineering, March 5–8, Genova, Italy, 2013, DOI: 10.1109/CSMR.2013.63, IEEE Computer Society Press, pp. 421-424.
- [C57] M. Risi, G. Scanniello, and G. Tortora: "MetricAttitude" In Proceedings of 17<sup>th</sup> European Conference on Software Maintenance and Reengineering, March 5–8, Genova, Italy, 2013, DOI: 10.1109/CSMR.2013.59, IEEE Computer Society Press, pp. 405-408.
- [C58] M. W. Asghar, A. Marchetto, A. Susi, and G. Scanniello: "Maintainability-based Requirements Prioritization by using Artifacts Traceability and Code Metrics" In Proceedings of 17<sup>th</sup> European Conference on Software Maintenance and Reengineering, March 5–8, Genova, Italy, 2013, DOI: 10.1109/CSMR.2013.62, IEEE Computer Society Press, pp. 417-420.

- [C59] A. Corazza, S. Di Martino, V. Maggio, A. Moschitti, A. Passerini, G. Scanniello, and F. Silvestri: "Using Machine Learning and Information Retrieval Techniques to Improve Software Maintainability", in Trustworthy Eternal Systems via Evolving Software, Data and Knowledge Communications in Computer and Information Science, Springer, vol. 379, 2013, pp 117-134.
- [C60] C. Gravino, G. Scanniello, and G. Tortora: "Does the Combined use of Class and Sequence Diagrams Improve the Source Code Comprehension? Results from a Controlled Experiment", In Proceedings of 2<sup>nd</sup> International Workshop on Experiences and Empirical Studies in Software Modelling, Innsbruck, Austria, October 2nd, 2012, ISBN: 978-1-4503-1811-2, ACM Press.
- [C61] C. Gravino, M. Risi, G. Scanniello, and G. Tortora: "Do Professional Developers Benefit from Design Pattern Documentation? a Replication in the Context of Source Code Comprehension", In Proceedings of 15<sup>th</sup> ACM/IEEE International Conference on Model Driven Engineering Languages and Systems, Innsbruck, Austria, September 30th - October 5th, 2012, ISBN: 978-3-642-33665-2, DOI: 10.1007/978-3-642-33666-9\_13, LNCS Press, pp. 185-201.
- [C62] U. Erra, G. Scanniello, and N. Capece: "Visualizing the Evolution of Software Systems Using the Forest Metaphor", In Proceedings of 16<sup>th</sup> International Conference on Information Visualisation, Montpellier, France, July 10-13, 2012, ISBN: 978-1-4577-0868-8, DOI: 10.1109/IV.2012.25, IEEE Computer Society Press, 87-92.
- [C63] M. Risi and G. Scanniello: "MetricAttitude: A Visualization Tool for the Reverse Engineering of Object Oriented Software", In Proceedings of 11<sup>th</sup> International Working Conference Advanced Visual Interfaces, Capri Island, Italy, May 21-25, 2012, ACM Press, ISBN: 978-1-4503-1287-5 DOI: 10.1145/2254556.2254643, pp. 449-456.
- [C64] Md. M. Islam, A. Marchetto, A. Susi, and G. Scanniello: "MOTCP: A tool for the prioritization of test cases based on a sorting genetic algorithm and Latent Semantic Indexing", In Proceedings of 28<sup>th</sup> IEEE International Conference on Software Maintenance, Trento, Italy, September 23-28, 2012, IEEE Computer Society Press, ISBN: 978-1-4673-2313-0, DOI: doi.ieeecomputersociety.org/10.1109/ICSM.2012.6405346, pp. 654-657.
- [C65] Md. M. Islam, A. Marchetto, A. Susi, and G. Scanniello: "A Multi-Objective Technique to Prioritize Test Cases based on Latent Semantic Indexing", In Proceedings of 15<sup>th</sup> IEEE Conference on Software Maintenance and Reengineering, Szeged, Hungary, March 27-30, 2012, IEEE Computer Society Press, ISBN: 9781467309844, DOI: 978-1-4673-0984-4, pp. 21-30.
- [C66] U. Erra and G. Scanniello: "Towards the Visualization of Software Systems as 3D Forests: the CodeTrees Environment" In Proceedings of 25<sup>th</sup> Annual International Symposium on Applied Computing, Riva del Garda, Italy, March 26-30, 2012, ACM Press, ISBN: 9781450308571, DOI: 10.1145/2245276.2245467, pp. 1095-1102.
- [C67] Carmine Gravino, Michele Risi, Giuseppe Scanniello, and Genoveffa Tortora: "Does the Documentation of Design Pattern Instances Impact on Source Code Comprehension? Results from Two Controlled Experiments" In Proceedings of 18<sup>th</sup> Working Conference on Reverse Engineering, Lero, Limerick, Ireland, 2011, IEEE Computer Society, pp. 67-76, ISBN: 978-1-4577-1948-6, DOI: 10.1109/WCRE.2011.18.
- [C68] G. Scanniello: "Source Code Survival with Kaplan Meier Estimator" In Proceedings of 27<sup>th</sup> IEEE International Conference on Software Maintenance, Williamsburg, VA, USA, September 25-30, 2011, IEEE Computer Society Press, pp. 524-527, ISBN: 978-1-4577-0663-9, DOI: 10.1109/ICSM.2011.6080823.
- [C69] S. Romano, G. Scanniello, M. Risi, and C. Gravino: "Clustering and Lexical Information Support for the Recovery of Design Pattern in Source Code" In Proceedings of 27<sup>th</sup> IEEE International Conference on Software Maintenance, Williamsburg, VA, USA, September 25-30, 2011, IEEE Computer Society Press, pp. 500-503, ISBN: 978-1-4577-0663-9, DOI: 10.1109/ICSM.2011.6080818.
- [C70] G. Scanniello, F. Fasano, A. De Lucia, and G. Tortora: "Software Quality Assessment and Error/Defect Identification in the Italian Industry Preliminary Results from a State of the Practice Survey", In Proceedings 6<sup>th</sup> International Conference on Software Engineering Advances, October 23-29, 2011, Barcelona, Spain, pp. 589-594, ISBN: 978-1-61208-165-6.
- [C71] G. Scanniello and U. Erra: "Assessing Think-Pair-Square in Distributed Modeling of Use Case Diagrams" In Proceedings of International Workshop on Empirical Requirements Engineering, Trento, Italy, August 30, 2011, IEEE CS Press, pp. 77-84, ISBN: 978-1-4577-1075-9, DOI: 10.1109/EmpiRE.2011.6046249.
- [C72] G. Reggio, F. Ricca, G. Scanniello, F. Di Cerbo, and G. Dodero: "A Precise Style for Business Process Modeling: Results from Two Controlled Experiments" In 14<sup>th</sup> ACM/IEEE International Conference on Model Driven Engineering Languages and Systems, Wellington, New Zealand, October 16-21, 2011, LNCS Press, pp. 138-152, ISBN: 978-3-642-24484-1, DOI: 10.1007/978-3-642-24485-8\_11.
- [C73] F. Di Cerbo, G. Dodero, G. Reggio, F. Ricca, and G. Scanniello: "Precise vs. Ultra-light Activity Diagrams - An Experimental Assessment in the Context of Business Process Modelling" In Proceedings of 12<sup>th</sup> International Conference on Product Focused Software Development and

- Process Improvement, Torre Canne, Italy June 20-22, 2011, LNCS Press, pp. 291-305, ISBN: 978-3-642-21842-2, DOI: 10.1007/978-3-642-21843-9 23.
- [C74] G. Scanniello and A. Marcus: "Clustering Support for Static Concept Location in Source Code" In Proceedings of 19<sup>th</sup> IEEE International Conference on Program Comprehension, Kingston, Ontario, Canada, June 22-24, 2011, IEEE Computer Society Press, ISBN: 978-1-61284-308-7, DOI: 10.1109/ICPC.2011.13.
- [C75] G. Scanniello, F. Ricca, and M. Torchiano: "On the Effectiveness of the UML Object Diagrams: A Replicated experiment" In Proceedings of 15<sup>th</sup> International Conference on Evaluation and Assessment in Software Engineering, Durham, UK, June 11-12, 2011, the IET, pp. 76–85, ISBN: 978-1-84919-509-6, DOI: 10.1049/ic.2011.0009.
- [C76] A. Corazza, S. Di Martino, V. Maggio, and G. Scanniello: "Investigating the use of Lexical Information for Software System Clustering" In Proceedings of 14<sup>th</sup> IEEE Conference on Software Maintenance and Reengineering, Oldenburg, Germany, March 1–4, 2011, IEEE Computer Society Press, pp. 35-44 ISBN: 978-1-61284-259-2, DOI: 10.1109/CSMR.2011.8.
- [C77] A. Corazza, S. Di Martino, V. Maggio, and G. Scanniello: "A Tree Kernel Based Approach for Clone Detection" In Proceedings of 26<sup>th</sup> IEEE International Conference on Software Maintenance, Timisoara, Romania, September 12-18, 2010, IEEE Computer Society Press, ISBN: 978-1-4244-8630-4, DOI: 10.1109/ICSM.2010.5609715.
- [C78] U. Erra, A. Portnova, and G. Scanniello: "Comparing two Communication Media in Use Case Modeling: Results from a Controlled Experiment" In Proceedings of 3rd International Conference on Empirical Software Engineering and Measurement, Bolzano-Bozen, Italy, September 16-17, 2010, ACM Press, ISBN: 978-1-4503-0039-1, DOI: 10.1145/1852786.1852854.
- [C79] F. Ricca, G. Scanniello, M. Torchiano, G. Reggio, and E. Astesiano: "On the Effort of Augmenting Use Cases with Screen Mockups: Results from a Preliminary Empirical Study" In Proceedings of 3<sup>rd</sup> International Conference on Empirical Software Engineering and Measurement, Bolzano-Bozen, Italy, September 16-17, 2010, ACM Press, ISBN: 978-1-4503-0039-1, DOI: 10.1145/1852786.1852838.
- [C80] G. Scanniello, C. Gravino, M. Risi, and G. Tortora: "A Controlled Experiment for Assessing the Contribution of Design Pattern Documentation on Software Maintenance" In Proceedings of 3<sup>rd</sup> International Conference on Empirical Software Engineering and Measurement, Bolzano-Bozen, Italy, September 16-17, 2010, ACM Press, ISBN: 978-1-4503-0039-1, DOI: 10.1145/1852786.1852853.
- [C81] D. Distante, M. Risi, and G. Scanniello: "Extending Web Content Management Systems' Navigation Capabilities with Semantic Navigation Maps" In Proceedings of 12<sup>th</sup> IEEE International Symposium on Web Systems Evolution, Timisoara, Romania, September 17-18, 2010, IEEE Computer Society Press, pp. 23-27, ISBN: 978-1-4244-8638-0.
- [C82] G. Scanniello, M. Risi, and G. Tortora: "Architecture Recovery using Latent Semantic Indexing and K-Means: An Empirical Evaluation" In proceedings of 8<sup>th</sup> IEEE International Conference on Software Engineering and Formal Methods, Pisa, Italy, September 13-18, 2010, IEEE CS Press, pp. 103-112, ISBN: 978-1-4244-8289-4, DOI: 10.1109/SEFM.2010.19.
- [C83] F. Ricca, G. Scanniello, M. Torchiano, G. Reggio, and E. Astesiano: "On the Effectiveness of Screen Mockups in Requirements Engineering: Results from an Internal Replication" In Proceedings of 3<sup>rd</sup> International Conference on Empirical Software Engineering and Measurement, Bolzano-Bozen, Italy, September 16-17, 2010, ACM Press, ISBN: 978-1-4503-0039-1, DOI: 10.1145/1852786.1852809.
- [C84] G. Scanniello, A. D'Amico, C. D'Amico, and T. D'Amico: "Using the Kleinberg Algorithm and Vector Space Model for Software System Clustering" In Proceedings of 18<sup>th</sup> IEEE International Conference on Program Comprehension, Braga, Portugal, 30 June – 2 July, 2010, IEEE Computer Society Press, pp. 180-189, ISBN: 978-1-4244-7604-6, DOI: 10.1109/ICPC.2010.17.
- [C85] G. Scanniello, C. Gravino, and G. Tortora: "Investigating the Role of UML in The Software Modeling and Maintenance: A Preliminary Industrial Survey" In Proceedings of 12<sup>th</sup> International Conference on Enterprise Information Systems, June 8-12, 2010, Funchal, Madeira, Portugal, pp. 141-148, ISBN: 978-989-8425-06-5.
- [C86] A. Corazza, S. Di Martino, and G. Scanniello: "A Probabilistic based Approach towards Software System Clustering" In Proceedings of 14<sup>th</sup> IEEE Conference on Software Maintenance and Reengineering, Madrid, Spain, March 15-18, 2010. IEEE Computer Society Press, pp. 88-96, ISBN: 978-1-61284-369-8, DOI: 10.1109/CSMR.2010.36.
- [C87] G. Scanniello, A. D'Amico, C. D'Amico, and T. D'Amico: "An Approach for Architectural Layer Recovery" In Proceedings of 25<sup>th</sup> Annual International Symposium on Applied Computing, Sierre, Switzerland, March 22-26, 2010, ACM Press, pp. 1853-1857, ISBN: 978-1-60558-639-7, DOI:10.1145/1774088.1774551.
- [C88] C. Gravino, G. Scanniello, and G. Tortora: "An Empirical Investigation on the Relation between Analysis Models and Source Code Comprehension" In Proceedings of 25<sup>th</sup> Annual International

- Symposium on Applied Computing, Sierre, Switzerland, March 22-26, 2010, ACM Press, pp. 2011-2012, ISBN: 978-1-60558-639-7, DOI: 10.1145/1774088.1774576.
- [C89] S. Abrahão, C. Gravino, E. Insfran, and G. Scanniello: "On the Effectiveness of Dynamic Modeling in UML: Results from an External Replication" In Proceedings of 3<sup>rd</sup> International Conference on Empirical Software Engineering and Measurement, Lake Buena Vista, Florida, USA, October 15-16, 2009, IEEE Computer Society Press, pp. 468-472, ISBN: 978-1-4244-5124-1, DOI: 10.1109/WSE.2009.5631253.
- [C90] A. De Lucia, M. Risi, G. Scanniello, and G. Tortora: "Towards Automatic Clustering of Similar Pages in Web Applications" In Proceedings of 11<sup>th</sup> IEEE International Symposium on Web Systems Evolution, Edmonton, Canada, September 25-27, 2009, IEEE Computer Society Press, pp. 99-108.
- [C91] U. Erra and G. Scanniello: "Synchronous Communication Media in the Software Requirements Negotiation Process", In Proceeding of 6th International Conference on Cooperative Design, Visualization, and Engineering, Luxembourg City, Luxembourg, September 20-23, 2009, Springer Verlag LNCS Press, pp. 245-252, ISBN: 978-3-642-04264-5, DOI: 10.1007/978-3-642-04265-2 36.
- [C92] A. De Lucia, F. Fasano, G. Scanniello, and G. Tortora: "Concurrent Fine-grained Versioning of UML Models" In Proceedings of 13<sup>th</sup> IEEE Conference on Software Maintenance and Reengineering, Fraunhofer, Kaiserslautern, Germany, March 24-27, 2009. IEEE Computer Society Press, pp. 89-98, ISBN: 978-0-7695-3589-0, DOI: 10.1109/CSMR.2009.35.
- [C93] A. De Lucia, F. Fasano, M. Mennella, G. Scanniello, and G. Tagliamonte: "DB-MELIS: An Eclipse Plug-in for Data Migration" In Proceedings of 13<sup>th</sup> IEEE Conference on Software Maintenance and Reengineering, Fraunhofer, Kaiserslautern, Germany, March 24-27, 2009. IEEE Computer Society Press, pp. 329-330, ISBN: 978-0-7695-3589-0, DOI: 10.1109/CSMR.2009.18.
- [C94] C. Gravino, G. Scanniello, and G. Tortora: "An Empirical Investigation on Dynamic Modeling in Requirements Engineering" In Proceedings of 11<sup>th</sup> ACM/IEEE International Conference on Model Driven Engineering Languages and Systems, Toulouse, France, September 28 - October 3, 2008, Springer Verlag LNCS Press, pp. 615-629, ISBN: 978-3-540-87874-2, DOI: 10.1007/978-3-540-87875-9 43.
- [C95] G. Scanniello, D. Distante, and M. Risi: "Using Semantic Clustering to Enhance the Navigation Structure of Web Sites" In Proceedings of 10<sup>th</sup> IEEE International Symposium on Web Site Evolution, Beijing, China, October 3-4, 2008, IEEE Computer Society Press, pp. 55-64, ISBN: 978-1-4244-2790-1, DOI: 10.1109/WSE.2008.4655396.
- [C96] G. Scanniello, A. De Lucia, M. Mennella, and G. Tagliamonte: "An Approach and an Eclipse Based Environment for Data Migration", In Proceedings of 24<sup>th</sup> IEEE International Conference on Software Maintenance, Beijing, China, September 28 - October 4, 2008, IEEE Computer Society Press, pp. 237-246, ISBN: 978-1-4244-2613-3, DOI: 10.1109/ICSM.2008.4658072.
- [C97] I. Barone, A. De Lucia, F. Fasano, E. Rullo, G. Scanniello, and G. Tortora: "COMOVER: Concurrent Model Versioning", In Proceedings of 24<sup>th</sup> IEEE International Conference on Software Maintenance, Beijing, China, September 28 - October 4, 2008, IEEE Computer Society Press, pp. 462-463, ISBN: 9781424426133, DOI: 10.1109/ICSM.2008.4658105.
- [C98] A. De Lucia, F. Fasano, G. Scanniello, and G. Tortora: "Comparing Inspection Methods using Controlled Experiments" In proceedings of 12<sup>th</sup> International Conference on Evaluation and Assessment in Software Engineering, Bari, Italy, June 26-27, 2008, The British Computer Society, available at http://www1.bcs.org.uk/upload/pdf/ewic\_ea08\_paper4.pdf.
- [C99] A. De Lucia, M. Risi, L. Rizzi, and G. Scanniello: "A Visual Framework for Reverse Engineering Processes" In Proceedings of 10<sup>th</sup> International Conference on Visual Information Systems (VISUAL 2008), Salerno, Italy, September 11-12, 2008, Springer Verlag LNCS Press, pp. 615-629, ISBN: 978-3-540-85890-4, DOI: 10.1007/978-3-540-85891-1 27.
- [C100] A. De Lucia, M. Risi, G. Scanniello, and G. Tortora: "Clustering Algorithms and Latent Semantic Indexing to Identify Similar Pages in Web Applications" In Proceedings of 9th IEEE International Symposium on Web Site Evolution, Paris, France, October 5-6, 2007, IEEE Computer Society Press, pp. 65-72, ISBN: 978-1-4244-1450-5, DOI: 10.1109/WSE.2007.4380246.
- [C101] M. Colosimo, A. De Lucia, R. Francese, and G. Scanniello: "Assessing Legacy System Migration Technologies through Controlled Experiments" In Proceedings of 23<sup>rd</sup> IEEE International Conference on Software Maintenance, Paris, France, October 2-5, 2007, IEEE Computer Society Press, pp 365-374, ISBN: 978-1-4244-1256-3, DOI: 10.1109/ICSM.2007.4362649.
- [C102] A. De Lucia, C. Gravino, G. Scanniello, and G. Tortora: "Assessing and comparing Blended and Pure Learning Approaches: A Controlled Experiment", In Proceedings of the 13<sup>th</sup> International Conference on Distributed Multimedia Systems, San Francisco Bay, USA, September 6-8, 2007, Knowledge Systems Institute Press, pp. 3-8.
- [C103] R. Francese, I. Passero, G. Scanniello, and G. Tortora: "Improving student's Self-Efficacy using an Adaptive Approach", In Proceedings of the 13<sup>th</sup> International Conference on Distributed Multimedia Systems, San Francisco Bay, USA, September 6-8, 2007, Knowledge Systems Institute Press, pp. 170-175.

- [C104] A. De Lucia, F. Fasano, G. Scanniello, and G. Tortora: "Integrating a Distributed Inspection Tool within an Artefact Management System", In Proceedings of 2<sup>nd</sup> International Conference and Data Technologies, Barcellona, Spain, July 22-25, 2007, pp. 184-189, ISBN: 978-989-8111-06-7.
- [C105] A. De Lucia, F. Fasano, G. Scanniello, and G. Tortora: "Assessing the Effectiveness of a Distributed Method for Code Inspection: A Controlled Experiment" In Proceedings of 2<sup>nd</sup> IEEE International Conference on Global Software Engineering, Munich, Germany, August 27-30, 2007, IEEE Computer Society Press, pp. 252-261, ISBN: 978-0-7695-2920-2, DOI: 10.1109/ICGSE.2007.11.
- [C106] A. De Lucia, M. Risi, G. Scanniello, and G. Tortora: "Comparing Clustering Algorithms for the Identification of Similar Pages in Web Applications" In Proceedings of 7<sup>th</sup> International Conference on Web Engineering, Como, Italy, July 16-20, 2007, Springer Verlag LNCS Press, pp. 415-420, ISBN: 978-3-540-73596-0, DOI: 10.1007/978-3-540-73597-7 34.
- [C107] M. Colosimo, A. De Lucia, R. Francese, and G. Scanniello: "MELIS: An Eclipse Based Environment for the Migration of Legacy Systems to the Web" In Proceedings of 13<sup>th</sup> Working Conference on Reverse Engineering, Benevento, Italy, October 23-27, 2006, IEEE Computer Society Press, pp.:293-294, ISBN: 0-7695-2719-1, DOI: 10.1109/WCRE.2006.34.
- [C108] A. De Lucia, R. Francese, G. Scanniello, G. Tortora, and N. Vitiello: "A Strategy and an Eclipse Based Environment for the Migration of Legacy Systems to Multi-tier Web-based Architectures" In Proceedings of 22<sup>nd</sup> IEEE International Conference on Software Maintenance, Philadelphia, Pennsylvania, September 24-27, 2006, IEEE Computer Society Press, pp. 438-447, ISBN: 0-7695-2354-4, DOI: 10.1109/ICSM.2006.9.
- [C109] A. De Lucia, G. Scanniello, and G. Tortora: "Using a Competitive Clustering Algorithm to Comprehend Web Applications" In Proceedings of 8<sup>th</sup> IEEE International Symposium on Web Site Evolution, Philadelphia, Pennsylvania, September 23-24, 2006, IEEE Computer Society Press, pp. 33-40, ISBN: 0-7695-2696-9, DOI: 10.1109/WSE.2006.19.
- [C110] G. Costagliola, A. De Lucia, F. Ferrucci, and G. Scanniello: "E-World: A Platform for Managing and Tracing Adaptive E-learning Processes" In Proceedings of the 12<sup>th</sup> International Conference on Distributed Multimedia Systems, Grand Canyon, USA, August 30 – September 1, 2006, Knowledge Systems Institute Press, pp.: 258-263, ISBN: 1-891706-19-5.
- [C111] G. Costagliola, A. De Lucia, F. Ferrucci, C. Gravino, and G. Scanniello: "Assessing the Usability of a Tool for Developing Adaptive E-learning Processes: An Empirical Analysis", In Proceedings of 6<sup>th</sup> IEEE International Conference on Advanced Learning Technologies, Kerkrade, The Netherlands, July 5 – 7, 2006, IEEE Computer Society Press, pp.: 265-269, ISBN: 0-7695-2632-2; DOI: 10.1109/ICALT.2006.1652421.
- [C112] A. De Lucia, M. Giordano, G. Polese, G. Scanniello, and G. Tortora: "Role Based Reengineering of Web Applications" In Proceedings of 7<sup>th</sup> IEEE International Symposium on Web Site Evolution, Budapest, Hungary, September 26, 2005, IEEE Computer Society Press, pp.: 103-110, ISBN: 0-7695-2470-2, DOI: 10.1109/WSE.2005.12.
- [C113] G. Costagliola, A. De Lucia, F. Ferrucci, and G. Scanniello: "Visual Languages for Non-Expert Instructional Designers: A Usability Study" In Proceedings of the 11<sup>th</sup> International Conference on Distributed Multimedia Systems, Banff, Canada, September 5-7, 2005, Knowledge Systems Institute Press, pp.: 46-51, ISBN: 1-891706-17-9.
- [C114] A. De Lucia, R. Francese, G. Scanniello, and G. Tortora: "Integrating e-Business and e-Learning Processes" In Proceedings of the 11<sup>th</sup> International Conference on Distributed Multimedia Systems, Banff, Canada, September 5-7, 2005, Knowledge Systems Institute Press, pp.: 103-108, ISBN: 1-891706-17-9.
- [C115] G. Costagliola, A. De Lucia, F. Ferrucci, and G. Scanniello: "Adaptive learning processes in Pure and Blended Teaching Approaches" In Proceedings of IADIS International Conference: e-Society 2005, Qawra, Malta, 27-30 June 2005, IADIS Press, pp.:414 418, ISBN: 972-8939-03-5.
- [C116] A. De Lucia, R. Francese, G. Scanniello, and G. Tortora: "Understanding Cloned Patterns in Web Applications". In Proceedings of 13<sup>th</sup> IEEE International Workshop on Program Comprehension, St. Louis, Missouri, USA, May 15-16, 2005, IEEE Computer Society Press, pp.:333 336, ISBN: 0-7695-2254-8, DOI: 10.1109/WPC.2005.42.
- [C117] M. Giordano, G. Polese, G. Scanniello, and G. Tortora: "Visual Modelling of Role-Based Security Policies in Distributed Multimedia Applications". In Proceedings of 6<sup>th</sup> IEEE International Symposium on Multimedia Software Engineering, Miami, FL, USA, December 13-15, 2004, IEEE Computer Society Press, pp.: 138 – 141, ISBN: 0-7695-2217-3. DOI: 10.1109/MMSE.2004.89.
- [C118] R. Distasi, L. Paolino, and G. Scanniello: "Developing a System for the Retrieval of Melodies from Web Based Repositories". In Proceedings of 3<sup>rd</sup> International Workshop on Multimedia Databases and Image Communication Vol. 17 of the World Scientific Series on Software Engineering and Knowledge Engineering, World Scientific, pp. 31 – 40, ISBN: 981-256-137-4.
- [C119] G. Costagliola, F. Ferrucci, G. Polese, and G. Scanniello: "An Approach for the Creation of Collaborative Environments". In Proceedings of 2<sup>nd</sup> IEEE International Conference on Information Technology: Research and Education, London, United Kingdom, June 28 – July 1, 2004, IEEE Computer Society Press, pp.:184 – 188, ISBN: 0-7803-8625-6, DOI: 10.1109/ITRE.2004.1393672.

- [C120] G. Casella, G. Costagliola, F. Ferrucci, G. Polese, and G. Scanniello: "Visual Languages for Defining Adaptive and Collaborative e-Learning Activities". In Proceedings of IADIS International Conference: e-Society 2004, Avila, Spain, 16-19 July, 2004, Vol. 1, IADIS Press, pp.:243 – 250, ISBN: 972-98947-5-2
- [C121] A. De Lucia, R. Francese, G. Scanniello, and G. Tortora: "Reengineering Web Applications Based on Cloned Pattern Analysis". In Proceedings of 12<sup>th</sup> IEEE International Workshop on Program Comprehension, Bari, June 24-26, 2004, Italy, IEEE Computer Society Press, pp.:132 – 141, ISBN: 0-7695-2149-5, DOI: 10.1109/WPC.2004.1311055.
- [C122] A. De Lucia, G. Scanniello, and G. Tortora: "Identifying Clones in Dynamic Web Sites Using Similarity thresholds". In Proceedings of 6<sup>th</sup> International Conference on Enterprise Information Systems, April 14-17, 2004, Porto, Portugal, pp.: 391-396, ISBN: 972-8865-00-7.
- [C123] G. Casella, G. Costagliola, F. Ferrucci, G. Polese, and G. Scanniello: "An Integrated System for Designing, Implementing and Managing Adaptive E-learning Activities". In Proceeding of Advances in Technology-Based Education: Toward a Knowledge-Based Society. ISBN Collection. Proceedings of Second International Conference on Multimedia and Information & Communication Technologies in Education, December 3-6, 2003, Badajoz, Spain, pp.: 479 – 483, ISBN: 84-96212-10-6.
- [C124] G. Casella, G. Costagliola, F. Ferrucci, G. Polese, and G. Scanniello: "A Visual System for Designing and Realizing Adaptive Distance Courses". In Proceeding of 1<sup>st</sup> International Conference Technology Enhanced Learning, November 20-21, 2003, Milano, Italy.
- [C125] G. Costagliola, F. Ferrucci, G. Polese, and G. Scanniello: "A Visual Language for Designing and Presenting e-learning Activities". In Proceeding of IEEE 1<sup>st</sup> International Conference on Information Technology: Research and Education, August 10-13, 2003, Newark, New Jersey, USA, IEEE Computer Society Press, pp.:630-634, ISBN: 0-7803-7724-9, DOI: 10.1109/ITRE.2003.1270696.
- [C126] G. Costagliola, A. De Lucia, R. Francese, M. Risi, and G. Scanniello: "A Component-Based Visual Environment Development Process" In Proceeding of ACM for the 14<sup>th</sup> International Conference on Software Engineering and Knowledge Engineering, July 15-19, 2002, Sant'Angelo d'Ischia, Italy, ACM Press, pp.: 327-334, ISBN: 1-58113-556-4, DOI: 10.1145/568760.568818.
- [C127] A. Bianchi, G. Costagliola, P. D'Ambrosio, R. Francese, and G. Scanniello: "A Visual System for the Generation of Banking Legacy Systems Gateway". In Proceeding of IEEE on Human-Centric Computing Languages, September 5-7, 2001, Stresa, Italy, IEEE Computer Society Press, pp.: 350-357, ISBN: 0-7803-7198-4, DOI: 10.1109/HCC.2001.995291.

#### Chapter in International Books (with review)

- [B1] U. Erra and G. Scanniello: "Visualizing the Evolution of Software Systems Using the Forest Metaphor" in Information Visualisation: Techniques, Usability and Evaluation, Chapter VII, Cambridge Scholars Publishing, 2014, pp. 126-140, ISBN: 9781443859813
- [B2] A. Corazza, S. Di Martino, V. Maggio, and G. Scanniello: "Combining Machine Learning and Information Retrieval Techniques for Software Clustering" In Communications in Computer and Information Science, vol. 255, Springer ISBN: 978-3-642-28032-0 DOI: 10.1007/978-3-642-28033-7 5, 2012, pp. 42-60
- [B3] F. Ferrucci, G. Scanniello, and G. Tortora: "E-Word: a platform for the management of adaptive elearning processes" In Methods and Applications for Advancing Distance Education Technologies: International Issues and Solution included in the Strategic Application of Distance Learning Technologies Book Series (vol.3), ISBN: 978-1-60566-342-5, Chapter II, IDEA Group Publishing, 2009
- [B4] G. Costagliola, F. Ferrucci, G. Polese, and G. Scanniello: "SEAMAN: A Visual Language Based Tool for E-learning Processes" In Strategic Application of Distance Learning Technologies included in the Advances in Distance Education Technologies Book Series (series vol.2), Editor: Mahbubur Rahman Syed, IDEA Group Publishing, 2008, pp.: 148-165, DOI: 10.4018/978-1-59904-480-4.ch010.
- [B5] A. De Lucia, R. Francese, and G. Scanniello: "Distributed Workflow Management based on UML and Web Services" In Encyclopedia of E-Commerce, E-Government, and Mobile Technologies, Category: Concepts, Trends, and Challenges, Editor: Mehdi Khosrow, 2006, IDEA Group Publishing, ISBN 1-59140-799-0, pp.: 217-222.

# National Conference Papers (with review)

- [NC1] Anna Corazza, Valerio Maggio, and Giuseppe Scanniello: "A New Dataset for Source Code Comment Coherence", in Proceedings of Third Italian Conference on Computational Linguistics and Fifth Evaluation Campaign of Natural Language Processing and Speech Tools for Italian, Napoli, Italy, December 5-7, 2016.
- [NC2] Javier Gonzalez-Huerta, Emilio Insfran, Silvia Abrahão, and Giuseppe Scanniello: "Validating a model-driven software architecture evaluation and improvement method: A family of experiments" In Proceedings of Jornadas de Ingeniería del Software y Bases de Datos, September 13-16, 2013, Salamanca, Spain.

- [NC3] S. Abrahão, C. Gravino, E. Insfran, G. Scanniello, and G. Tortora: "On the Effectiveness of UML Sequence Diagrams in the Comprehension of Functional Requirements" In Proceedings of Jornadas de Ingeniería del Software y Bases de Datos, September 18-20, 2013, Madrid, Spain.
- [NC4] G. Dodero, F. Di Cerbo, G. Reggio, F. Ricca, and G. Scanniello: "Assessing the effectiveness of "Precise" Activity Diagrams in the Context of Business Process Modeling" In Proceedings of 19th Italian Symposium on Advanced Database Systems, June 26-29, 2011, Maratea, Potenza, Italy, pp. 371-378.
- [NC5] G. Scanniello and U. Erra: "A New Method for Cooperatively Modeling High Level Use Case Diagrams in Global Software Development", In Proceedings of the Conference of the Italian Chapter of AIS (Association for Information Systems), October 7-8, Rome, Italy, 2011, ISBN: 978-88-6105-063-1.
- [NC6] A. De Lucia, R. Francese, G. Scanniello, and G. Tortora: "Experimental Evaluation of Legacy System Migration Technologies" In Proceedings of the METAMORPHOS Project Workshop, funded by MiUR (Ministero dell'Università e della Ricerca) under grant PRIN- 2006-2006098097, Rubbettino Editore, 2010, pp. 177-205, ISBN: 978-88-498-2836-8.
- [NC7] M. L. Bernardi, G. A. Di Lucca, F. Fasano, M. Di Penta, and G. Scanniello: "Reverse Engineering of Web Based Applications: A Survey on Methods and Techniques" In Proceedings of the METAMORPHOS Project Workshop, funded by MiUR (Ministero dell'Università e della Ricerca) under grant PRIN- 2006-2006098097, Rubbettino Editore, 2010, pp. 117-141, ISBN: 978-88-498-2836-8
- [NC8] M. Lapolla, M. Risi, and G. Scanniello "An Empirical Evaluation of the Eclipse Framework" In Proceedings of 4<sup>th</sup> Italian Workshop on Eclipse Technologies Eclipse-IT 2009, Bergamo, Italy September 28-29, ISBN: 978-88-904388-0-6, 2009, pp. 65-76.
- [NC9] D. Distante, M. Risi, and G. Scanniello: "An Eclipse Plug-in to Improve the Navigability of Web Sites" In Proceedings of 4<sup>th</sup> Italian Workshop on Eclipse Technologies Eclipse-IT 2009, Bergamo, Italy September 28-29, ISBN: 978-88-904388-0-6, 2009, pp. 53-64.
- [NC10]A. De Lucia, F. Fasano, M. Risi, and G. Scanniello: "An Eclipse Based Environment to Define and Execute Processes with Application to the Reverse Engineering". In Proceedings of 3<sup>rd</sup> Italian Workshop on Eclipse Technologies Eclipse-IT 2008, Bari, Italy, 17-18 November, ISBN/ISSN: 1613-0073, 2008, pp. 27-36.
- [NC11]G. Casella, G. Costagliola, F. Ferrucci, G. Polese, and G. Scanniello: "An Approach for Defining Synchronous and Asynchronous E-Learning Courses Based on Visual Language". In Proceedings of Didamatica 2004, Ferrara, Italy, 10-12 Maggio, 2004, pp.673 – 682.

#### Main International and National Research Collaborations (ongoing and past)

- Prof. Patricia Lago, Prof. Ivano Malavolta, Department of Computer Science, Faculty of Sciences, VU University Amsterdam, the Netherlands. Topics: Green Software Engineering, Refactoring and Bad Smell, Software Maintenance and Evolution.
- Prof. Barbara A. Kitchenham, Keele University, UK, Topics: Empirical Software Engineering, User-Centric Data Science and Analysis.
- Prof. Lech Madeyski, Wroclaw University of Science and Technology, Poland, Topics: User-Centric Data Science and Analysis, Empirical Software Engineering.
- Prof. Michele Lanza and Prof. Gabriele Bavota, University of Lugano, Switzerland, Topics: Mining Software Repositories, User-Centric Data Science and Analysis, Software Visualization.
- Prof. Giuliano Antoniol, École Polytechnique de Montréal, Montréal, (Québec) Canada. Topics: Software Testing, Search Based Software Engineering.
- Prof. Natalia Juristo, Politecnico di Madrid, Topics: Test Driven Development, Empirical Software Engineering, Data Science and Analysis.
- Prof. Denys Poshyvanyk, College William and Mary, USA, Topics: Refactoring and Bad Smell, Software Maintenance and Evolution.
- Prof. Davide Fucci, Prof. Burak Turhan, Prof. Marku Oivo, University of Oulu Graduate School, Finland, Topics: Test-Driven Development, Empirical Software Engineering, Data Science and Analysis.
- Prof. Egidio Astesiano, Prof. Gianna Reggio, Prof. Filippo Ricca, University of Genova, Italy. Topics: Requirements Engineering, Empirical Software Engineering, Data Science and Analysis.
- Prof. Adrian Marcus, University of Texas at Dallas, USA. Topics: Concept and Feature Location, Software Maintenance and Evolution.
- Prof. Silvia Abrahão, Prof. Emilio Insfran, and Dott. Javier Gonzalez-Huerta, Università Politecnica de Valencia, Spain. Topics: Requirements Engineering, Software Modeling, Empirical Software Engineering.
- Prof. Mariateresa Baldassarre, Prof. Danilo Caivano, University of Bari, Italy, Topics: Test-Driven Development, Empirical Software Engineering, Data Science and Analysis, Software Maintenance and Evolution.

- Dott. Francesco Dicerbo, SAP Research, Topics: Software Modeling and Empirical Software Engineering, Software Maintenance and Evolution.
- Prof. Gabriella Dodero, Free University of Bolzano, Italy. Topics: Software Modeling and Empirical Software Engineering, Software Maintenance and Evolution.
- Prof. Marcela Genero, Dott. José A. Cruz-Lemus Department of Technologies and Information Systems University of Castilla La Mancha, Spain. Topics: Software Modeling, Empirical Software Engineering, Software Maintenance and Evolution.
- Dott. Alessandro Marchetto, Dott. Angelo Sussi, Dott. Valerio Maggio, Fondazione Bruno Kessler, Topics: Testing, Search Based Software Engineering, Machine Learning, Data Science and Analysis, Computational linguistics.
- Prof. Damiano Distante, Facoltà di Economia, University Unitelma Sapienza, Roma, Italy. Topics: Web Engineering and Reengineering.
- Prof. Genoveffa Tortora, Prof. Andrea De Lucia, Prof. Filomena Ferrucci, Prof. Carmine Gravino, Prof. Rita Francese, Prof. Michele Risi, Prof. Giuseppe Polese. University di Salerno, Italy. Topics: Software Engineering, Software Maintenance and Evolution, Empirical Software Engineering, Global Software Development, Cooperative Modelling, Software Visualization, Mobile Development Analysis and Evolution, e-learning.
- Prof. Marco Torchiano, Prof. Mauriso Morisio. Politecnico di Torino, Italy. Topics: Requirements Engineering, Empirical Software Engineering, Green Software Engineering.
- Prof. Anna Corazza, Dott. Porfirio Tramontana, Prof. Sergio Di Martino, University Federico II, Napoli, Italy. Topics: Software Maintenance and Evolution, Machine Learning, User-Centric Data Science and Analysis, Computational linguistics.
- Dott. Fabrizio Silvestri, ISTI CNR, Pisa, Italy. Topics: Software Clustering, Computational Linguistics.
- Prof. Alessandro Moschitti, University of Trento, Italy. Topics: Software Clustering, Computational Linguistics.
- Prof. Tim Menzies, West Virginia University, USA. Topics: Fault Prediction, Software Clustering.
- Prof. Fausto Fasano, University of Molise, Italy. Topics: Global Software Engineering.
- Prof. Miroslaw Staron, Prof. Rogardt Heldal, Dott. Hakan Burden University of Gothenburg, Sweden. Topics: Requirements Engineering, Empirical Software Engineering.
- Prof. David Lo, Prof. Tien-Duy B. Le, Dott. Lucia Lucia, prof. Jianling Sun, School of Information Systems, Singapore Management University. Topics: Machine Learning, Information Retrieval, Concept Location, Concern Localization.
- Prof. Hausi Muller, Faculty of Engineering, Department of Computer Science, University of Victoria, Canada. Topics: Green Software Engineering.
- Prof. Foutse Khomh e Yann-Gaël Guéhéneuc Ecole Polytechnique de Montréal, Topics: Software Refactoring and Bad Smells.
- Prof. Fabio Petrillo, Université du Québec à Chicoutimi, CAN, Topics: Software Refactoring and Bad Smells.
- Prof. Martin Shepperd, Brunel University London, Department of Computer Science, UK. Topics: Empirical Software Engineering.

#### **Awards**

- In 2017 prof. Giuseppe Scanniello was beneficiary, as Associate Professor, of "Funding of Basic Research Activities" (FFABR). The individual amount of the annual funding was € 3,000 and was only assigned to 25% of the Italian Associate Professors who applied for it. The applicants were assessed on their scientific production and quality.
- Best paper award at the ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM 2016) for the paper:
  - "An External Replication on the Effects of Test-Driven Development Using a Multi-site Blind Analysis Approach"
- Best paper award at International Workshop on Distance Education Technologies for the paper:
  - "Supporting Mobile Development Project-Based learning by Software Project and Product Measures".
- Highly Commended paper award for the International Conference on Evaluation and Assessment in Software Engineering for the paper:
  - "Results from an Ethnographically-informed Study in the Context of Test-Driven Development"
- Best paper award at International Workshop on Distance Education Technologies for the paper:
  - "On the Experience of Using Git-Hub in the Context of an Academic Course for the Development of Apps for Smart Devices"
- Nomination for best paper award at 41st Euromicro Conference on Software Engineering and Advanced Applications for the papers:
  - "On the Coherence Between Comments and Implementations in Source Code"

"On the Use of Requirements Measures to Predict Software Project and Product Measures in the Context of Android Mobile Apps: A Preliminary Study"

 Nomination for best paper award at the ACM/IEEE International Symposium on Empirical Software Engineering and Measurement for the paper:

A Longitudinal Cohort Study on the Retainment of Test-Driven Development (it also got the Open Data Recognition award)

- Nomination for best paper award at ACM/IEEE International Conference on Model Driven Engineering Languages and Systems for the paper:
  - A Precise Style for Business Process Modeling: Results from Two Controlled Experiments
- Awarded as Outstanding Reviewer Status for the Information and Software Technology Journal (2014-2015), Elsevier.
- Distinguished reviewer for Transactions on Software Engineering and Methodology (2019), ACM.
- Distinguished Reviewer for the International Conference on Evaluation & Assessment in Software Engineering, 2013.

# **Program Committees and Expert Review Panel**

- ACM/IEEE International Conference on Software Engineering, 2017.
- IEEE/ACM International Conference on Automated Software Engineering, 2017.
- Doctoral Symposium dell' IEEE/ACM International Conference on Automated Software Engineering (2016).
- ÎEEE Înternational Conference on Software Maintenance and Evolution, (2020, 2018, 2016, 2015, 2015-ERA, 2014-ERA, 2013, 2012, 2011).
- ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (2020, 2018, 2017, 2014).
- IEEE International Conference on Software Analysis, Evolution, and Reengineering (2020, 2018, 2016, 2015, 2014, 213-CSMR).
- ACM/IEEE International Conference on Program Comprehension (2020, 2020-ERA, 2019, 2016, 2013, 2011).
- ACM/IEEE International Conference on Model Driven Engineering Languages and Systems, Workshops Selection Committee (2015).
- ACM Student Research Competition at ACM/IEEE International Conference on Model Driven Engineering Languages and Systems (2014).
- Conference on Software Maintenance and Reengineering (2014, 2013).
- Euromicro Conference series on Software Engineering and Advanced Applications (2015, 2014).
- International Conference on Evaluation & Assessment in Software Engineering (2020, 2019, 2018, 2017, 2016, 2014, 2013, 2012).
- International Conference on ICT for Sustainability (2019, 2018, 2017, 2016, 2015, 2014)
- QUATIC (Track: Quality Aspects in Evidence-Based Software Engineering) (2019).
- International Symposium on Web Systems Evolution (2011, 2010, 2009, 2008, 2007)
- International Conference on Software Engineering Advances (2014, 2013, 2012, 2011).
- International Conference on Computer Supported Education (2014, 2013, 2012, 2011, 2010).
- International Workshop on Experiences and Empirical Studies in Software Modeling (2013, 2012, 2011).
- International Conference on Advanced Software Engineering & Its Applications (2013, 2012).
- International Conference on Software Engineering and Applications (2014, 2013).
- International Conference e-Society (2014, 2013, 2012, 2011, 2010, 2009).
- International Conference on Advances in Human-oriented and Personalized Mechanisms (2013).
- International Working Conference on Advanced Visual Interfaces Interactive Posters Track (2012).
- International Workshop on Distance Education Technologies (2014, 2013, 2012, 2011, 2010, 2009).
- International Conference on Product Focused Software Development and Process Improvement track on short paper and poster (2019, 2012).
- European Track of the Conference on Software Maintenance and Reengineering (2013, 2011).
- International Workshop on SOA Migration and Evolution (2010).
- International Summer School on Software Engineering (2009-Today).

## Organization and Review Activities

- Program Co-Chair (Track IS Methodologies and Education) for the 29<sup>th</sup> International Conference on Information Systems Development (ISD 2020/2021), Valencia, Spain.
- Program Co-Chair for the International Advanced School on Empirical Software Engineering (IASES 2020-2021, Topics: Design Science Paradigm); Bari, Italy.
- Demo Co-Chair for the 43<sup>rd</sup> International Conference on Software Engineering (ICSE 2021), Madrid, Spain 2021.

- General chair for the 22<sup>nd</sup> International Conference on Software Visualization (IV 2018), Salerno,
- Program Co-Chair (Track Managing ISD, Information System Development), for the 27th International Conference on Information Systems Development (ISD 2019), Lund. Sweden, August.
- Program Co-Chair for the Early Research Achievement Track of the ACM/IEEE International Conference on Program Comprehension (ICPC 2018).
- Organizer for a research working day on Computational Linguistics at the University of Basilicata: "Lingua e Computer: Esperienze dalla Ricerca in Elaborazione del Linguaggio Naturale" (2018).
- General-Chair of the ACM/IEEE International Conference on Program Comprehension (ICPC 2017).
- From 2017 he is a member of the Steering Committee of the GREENS (Green and Sustainable Software) workshop.
- Program-Chair for short paper track of the ACM/IEEE International Symposium on Empirical Software Engineering and Measurement (ESEM 2016).
- Program-Chair of the International EUROMICRO Conference on Advanced Software Engineering and Advanced Applications (SEAA), Track on Software Management, 2016.
- Proceedings Chair for the ACM/IEEE International Conference on Program Comprehension (ICPC
- From 2012 to 2016 organizer for the GREENS (Green and Sustainable Software) workshop; collocated with the ACM/IEEE International Conference on Software Engineering (ICSE).
- 2013 organizer for the MALIR-SE (MAchine Learning and Information Retrieval for Software Evolution) workshop; collocated with the ACM/IEEE International Conference on Automated Software Engineering.
- Form 2019 he is a member of the ACM TOSEM (Transactions on Software Engineering and Methodology ) Board of Distinguished Reviewers.
- Form 2014 he is a member of the Review Board for the International Journal on Empirical Software Engineering (EMSE).
- Prof. Giuseppe Scanniello is or has been a member of the editorial board of several minor/medium International Journals in the field of Computer Science: Journal of Scientific Programming, Global Journal of Advanced Software Engineering, Asian Journal of Computer Science, International Journal on Advances in Software Engineering, International Journal of Man, Machine and Technology, International Journal of Patterns

#### **Review Activities for International Journal**

- IEEE Transactions on Software Engineering
- ACM IEEE Transactions on Software Engineering and Methodologies
- International Journal on Empirical Software Engineering, edited by Springer.
- IEEE Software.
- International Journal of Systems and Software, edited by Elsevier.
- International Journal of Software Maintenance and Evolution, edited by Wiley, Inc.
- International Journal of Visual Languages and Computing, edited by Elsevier.
- International Journal on Software Tools for Technology Transfer, edited by Springer.
- International Journal on Science of Computer Programming, edited by Elsevier.
- International Journal on Information and Software Technology, edited by Elsevier.
- IET Software International Journal (also known as IEE Proceedings Software), edited by IEE.
- Advances in Software Engineering.

  International Journal of Interactive Technology and Smart Education.
- International Journal of Library and Information Science.
- International Journal of Software Engineering and Knowledge Engineering.
- International Journal on Advances in Software (IARIA Journals).
- International Journal of Educational Technology & Society.

## **Related Research Activities**

- Scientific Committee member for the International Summer School on Software Engineering ISSSE (2014, 2013, 2012, 2011, 2010)
- Organizing Committee for the International Summer School on Software Engineering ISSSE (2009)
- Local Arrangements Chair of the 5<sup>th</sup> International School on Software Engineering (2008), Salerno,
- Scientific secretariat member and webmaster of the International School on Software Engineering (2006, 2005, 2003).
- Webmaster of the 3rd International Workshop on Cooperative Support for Distributed Software Engineering Processes (2004).
- Exhibition Chair and Webmaster of the 14th International Conference on Software Engineering and Knowledge Engineering, Ischia, Italy.

#### Management activities

- Form 2019 he is the delegate of the University of Basilicata for the CINECA (National Interuniversity Consortium, i.e., a non-profit consortium, made up of 70 Italian universities, four national research centers, and the Ministry of Universities and Research).
- From 2019 he is the delegate of the University of Basilicata for the GRIN (GRuppo dei professori e ricercatori in INformatica).
- From 2018 he is the President of the Infrastructure Center and ICT Systems at the University of Basilicata (this center manages the ICT services and includes about 10 personal units).
- From 2018 he is the delegate of the University of Basilicata for the GARR Network, the Italian National computer network for Universities and research centers.
- From 2015 he is the Head of the BASE (BAsilicata Software Engineering) Lab at the University of Basilicata, which currently hosts: two Ph.D. students, one scholarship, and two Research Fellows.
- From 2015 to 2020 he has been the delegate, of the Bachelor Degree in Computer Science of the Department of Mathematics, Computer Science, and Economics at the University of Basilicata, for the Peer Commission of Lecturers and Students.
- From 2014 he is the coordinator for the Research Area in Computer Science at the University of Basilicata (Department of Mathematics, Computer Science, and Economics).
- From 2014 he is a Member of Management Board of the Department of Mathematics, Computer Science, and Economics at the University of Basilicata. This board is composed of major representatives of the Department Council, who are directly nominated by the dean of the department.
- From 2014 to 2010 has been a delegate of the Department of Mathematics, Computer Science, and Economics for the Infrastructure Center and ICT Systems of the University of Basilicata.
- From 2006 has been Member of several commissions at the University of Basilicata to assess the teaching and research qualification of temporary lecturers for courses of the Bachelor and Master programs in Computer Science and Computer Engineering, respectively. A list of these courses is: Laboratory of Computer Programming, Basic of Computer Programming, Procedural Programming, Object-Oriented Programming, Advanced Object-Oriented Programming, Client-Server Computer Programming, Web Development, Informative Systems, Computer Networks, Databases, Operating Systems.
- From 2006 he is a Member of the Didactic Board in charge to handle and monitor the formative processes of the Bachelor and Master Degrees in Computer Science and Computer Engineering, respectively, at the University of Basilicata.

#### Responsibility for Research and Formative Projects

- INPS (Istituto Nazionale Previdenza Sociale) Title: "DAKAR (DigitAl Knowledge e pubblica AmministRazione)." Object: Definition and application of a methodological model aimed at increasing the technological and digital knowledge of employees of the Public Administration (PA) through the analysis, interpretation, and report of data and processes relating to the provided services to implement the government guidelines (e.g., AgiD) related to the promotion of innovative management models, the simplification and modernization of the PA institutions as well as the improvement of the quality of services and interoperability between PA, companies, and citizens. In this respect, prof. Giuseppe Scanniello designed a formative course, which has been administered to a selection of employees of several institutions of the PA from the Basilicata Region. Prof. Giuseppe Scanniello designed and had to manage several aspects of this course (e.g., organization, design and delivery of the overall didactic process, lecturers' and learners' selection, the assessment model for learners, and so on), which was financed on competitive basis. (about 25K€). 2019-2020.
- ARTIS Consulting S.p.A. Title: "NAV Fondi Aperti." Object: Definition of methods, techniques, and tools for the testing of platforms for supervised entities operating in the traditional investment funds market. (about 50K€). As part of this project prof. Giuseppe Scanniello was also responsible for a six-month scholarship. 2019-2020.
- University of Basilicata. Title: "CASPEV: Comprensione di Artefatti Software Per l'Evoluzione." Object: Definition of methods, techniques and tools for the analysis of software artifacts to support the evolution of legacy system. The proposed solutions have been assessed by a number of empirical studies. The greater part of these studies are human-centric experiments. (about 20K€). 2013-2018.
- University of Basilicata. Title: "NLP for regression TEsting NLP4TE." Object: Investigating the use of Natural Language Processing Techniques in the context of Regression Testing. The main goal is the definition of methods, techniques, and tools to support: test case section, test case prioritization, and test suite miniaturization/minimization. (about 20K€). 2018-2021.
- University of Basilicata. Title: "Software Engineering for Smart Applications." Object: Defining approaches to support the development and evolution of software applications, with a special focus

on the definition of methods for predicting the effort required to develop and maintain applications for smartphones (i.e., Apple and Android). It has been investigated the possibility of using artificial intelligence techniques to define models for estimating costs and energy consumption, as well as the possibility of using past information to predict the presence of faults within the source code of smartphone applications. (about 7K€). 2018-2021.

- Prof. Giuseppe Scanniello was responsible for the Task 6.2.1 as part of the Industrial Research Project and non-predominant Experimental Development, specialization area "Aerospace", referred to the aid application marked by the identification code ARS01\_00405 entitled "OT4CLIMA Innovative OT Technologies for studying the impacts of climate change on the environment." The activities of this project are carried out in the PON Research and Innovation 2014 2020 resources and took effect from 01/09/2018. Task 6.2.1 concerns the definition of functional specifications, data and processing chains. In this activity, the functional requirements of the services will be identified and specified from the end-user-point of view and data, techniques and specific processing algorithms will be modeled accordingly. OT4CLIMA lasted thirty months (total cost of the project 4.4M€; while the total funded amount was 20K€ for the task T 6.2.1).
- Basilicata Region and the Consortium for the Scientific and Technological Research Area of Trieste. Title: "Feasibility Study for the Definition and Testing of an Approach to Migrate Apps for Smartphones to Wearable Devices." Object: Defining a strategy to migrate apps originally developed for smart devices (e.g., smartphone) to wearable devices (e.g., smartwatch). The developed solutions were tested in a pilot project to assess their validity. This project is founded on resources of the P.O. F.E.S.R. Basilicata 2007-2013 Axis II Knowledge Society L.I. II.1.2.a from 23-07-2015 to 31-10-2015. (about 20K€).
- ERASMUS+ Title: "EO4GEO: Towards an innovative strategy for skills development and capacity building in the space geo-information sector supporting Copernicus User Uptake." Prof. Giuseppe Scanniello led the execution of Task 3.4 (Testing and Documenting Platform Tools) within WP 3 (Developing an Integrated Platform of Collaborative Tools) on which the University of Basilicata was responsible for. EO4GEO was funded under the EACEA / 04/2017 Erasmus + KA2: Cooperation for innovation and the exchange of good practices Sector Skills Alliances call. Project N°: 591991-EPP-1-2017-1-IT-EPPKA2-SSA-B. 2018-2021.
- Consorzio per le Tecnologie per le Osservazioni della Terra e dei Rischi Naturali (TeRN). Title: "Networking and Internationalization of Basilicata Space Technologies NIBS." Prof. Giuseppe Scanniello was responsible for what concerns the study and research activities between the Department of Mathematics, Computer Science, and Economics of the University of Basilicata and the Consortium for Technologies for Earth Observations and Natural Risks (TeRN) within the following objective: Prototyping of STS Lucano applications/products on multi-platform systems (mobile phones, tablets, etc.) for demonstration purposes, or Study and research activities for the development of demonstrative APPs aimed at acquiring observations direct citizens to integrate them into an environmental monitoring and civil protection systems. The project has been funded under the PO-FESR Basilicata 2007-2013 under Axis II L.I. II. 1. 2C and Axis III –L.I. III. 3.1. A (n. 1078 of 07/08/2012 BUR n. 31 27/08/2012). (about 40K€). 2015.
- MiUR (Minister of the University and Research). Title: "Un Sistema Visuale per la generazione di Gateway per sistemi informativi eterogenei." Object: The goal of this project was to define and experimenting user-interfaces based on visual programming languages, whose goal was the generation of communication gateway among heterogeneous system. (about 1,5K€). 2003.

## **Participation in National Research Projects**

Prof. Giuseppe Scanniello also collaborated to several research projects. A list of the (main) projects follows: "Realtà Aumentata per la Manutenzione delle Linee Elettriche" (2014-2015); "Studio, Progettazione, Sviluppo e Sperimentazione di un Framework per Applicazioni Domotiche Multidispositivo" (2014); "Studio di fattibilità finalizzato allo Sviluppo di una Vetrina 3D basata sulla Realtà Aumentata" (2014); "La gestione dell'informazione nello sviluppo di applicazioni software" (2013-2014); "Studio, Progettazione, Prototipizzazione e Sperimentazione di Tecniche per la Gestione di Identità Federate e Tecniche per la Gestione Semantica dei Dati" (2012); "Sistemi Informativi Avanzati e Tecnologie Del Software" (2012-2013); "Realtà Aumentata per Contenuti Culturali-Archeologici su Smartphone" (2010-2011); "Metodi per la valutazione sperimentale di tecnologie e applicazioni software" (2011-2012); "Sistemi di Recommendation a Supporto dello Sviluppo di Sistemi Software e Applicazioni" (2010-2011); "Metodi e Strumenti per lo Sviluppo di Sistemi Software e Applicazioni" (2009-2011); "Metodi e Strumenti per il Lavoro Cooperativo" (2008-2009); "Svolgimento di attività di ricerca per la realizzazione prototipale, sperimentazione e valutazione di soluzioni innovative collegate al progetto Clickworld 2 (Architettura Multiagente per Matchmaking e Recommendation)" (2008); Studio, definizione, realizzazione prototipale, sperimentazione e valutazione di soluzioni innovative per la cooperazione applicativa in ambiente di e-government, nell'ambito del progetto nazionale denominato ICAR" (2007); "Ingegneria del Software e Studi Empirici" (2007); "METAMORPHOS (MEthods and Tools for migrAting software systeMs towards web and service Oriented aRchitectures: exPerimental evaluation, usability, and technology tranSfer), finanziato dal MiUR (Ministero

dell'Università e della Ricerca)" (2006-2007); "Definizione ed implementazione di una metodologia per la decomposizione, reingegnerizzazione e wrapping di sistemi legacy" (2006); "Sistemi Visuali ed Interattivi" (2006-2007); "Middleware per servizi evoluti su sistemi distribuiti Wired-Wireless di grandi dimensioni" (2005-2006); "Tracciabilita' tra artefatti software in processi evolutivi" (2004-2005); "Un Geo-data Warehouse per la cooperazione fra Enti Territoriali" (2002-2003); "Cartografia Spaziale mediante interferometria SAR (CASPIS)" (2001).

#### Review Activities for Industrial, Academic, and Public Projects

- He has been several times members of the review board for the National Scientific Research Program. Being prof. Giuseppe Scanniello is in the Register of Expert Peer Reviewers for Italian Scientific Evaluation (REPRISE MiUR).
- He has been a reviewer for the project "Agenda Digitale Regione Basilicata" (about 18M€).
- He has been a reviewer for the project "UNESCO Matera 2017" in the context of the European Capital of the Culture initiatives.
- He has been a reviewer for the project "Cagliari 2020" PON/FESR MiUR (about 20M€).
- He has been a member of the committee for several academic competitions in Italy; from the selection of Ph.D. students to research fellows/scholarships and research assistants.
- He has been a member of the review board of many of Ph.D. thesis of students from several National University: University of Bari, University of Salerno, University of Molise, University of Naples, University of Sannio and so on.
- He has been a member of the thesis defense board of many of Ph.D. students from some National University: University of Aquila, University of Basilicata, and so on.

#### **Academic Courses**

- Software Engineering of the Bachelor Program in Computer Science at the University of Basilicata (from 2006 until 2012, 2017, from 2018 to 2021)
- Advanced Software Engineering of the Master Program in Computer Engineering at the University of Basilicata
  - (from 2012 until 2014 and from 2016 to 2021)
- Informative Systems of the Master Program in Computer Engineering at the University of Basilicata (from 2015 to 2018)
- Computer Networks of the Bachelor Program in Computer Science at the University of Basilicata (from 2016 to 2019 and 2021)
- Algorithms and Data Structures of the Bachelor Program in Computer Science at the University of Basilicata
  - (from 2004 until 2013)
- Operating Systems of the Bachelor Program in Computer Science at the University of Basilicata (2014-2015)

#### Students' Advising

- He was the advisor of the following Ph.D. Students: Simone Romano, Maria Caulo, and Carmen Coviello.
- He advised or co-advised more than 100 Students of the Bachelor and Master programs at the University of Basilicata and at the University of Salerno.

# **Doctoral Board**

University of SALENTO, Italy

Title: "MATEMATICA E INFORMATICA"

Academic year: 2020/2021 - Course: XXXVI - Duration: 3 years

University of SALENTO, Italy

Title: "MATEMATICA E INFORMATICA"

Academic year: 2019/20 - Course: XXXV - Duration: 3 years

University of SALENTO, Italy

Title: "MATEMATICA E INFORMATICA"

Academic year: 2018/19 - Course: XXXIV - Duration: 3 years

University of SALENTO, Italy

Title: "MATEMATICA E INFORMATICA"

Academic year: 2017/18 - Course: XXXIII- Duration: 3 years

University of SALENTO, Italy

Title: "MATEMATICA E INFORMATICA"

Academic year: 2016/17 - Course: XXXII - Duration: 3 years

University of SALENTO, Italy

Title: "MATEMATICA E INFORMATICA"

Academic year: 2015/16 - Course: XXXI - Duration: 3 years

University of SALENTO, Italy

Title: "MATEMATICA E INFORMATICA"

Academic year: 2014/15 - Course: XXX - Duration: 3 years

University of SALENTO, Italy

Title: "MATEMATICA E INFORMATICA"

Academic year: 2013 - Course: XXIX - Duration: 3 years

University of BASILICATA

Title: "DOTTORATO INTERNAZIONALE "PITAGORA DI SAMO/INTERNATIONAL DOCTORAL

SEMINAR "PYTHAGORAS OF SAMOS""

Academic year: 2012 - Course: XXVIII - Duration: 3 years

University of BASILICATA

Title: "MÁTEMATICA E INFORMATICA "PITAGORA DI SAMO" /INTERNATIONAL DOCTORAL

SEMINAR "PYTHAGORAS OF SAMOS""

Academic year: 2011 - Course: XXVII - Duration: 3 years

University of SALERNO

Title: "SCIENZE E TECNOLOGIE DELL'INFORMAZIONE, DEI SISTEMI COMPLESSI E

**DELL'AMBIENTE'** 

Academic year: 2011 - Course: XXVII - Duration: 3 years

University of SALERNO

Title: "SCIENZE E TECNOLOGIE DELL'INFORMAZIONE, DEI SISTEMI COMPLESSI E

**DELL'AMBIENTE"** 

Academic year: 2010 - Course: XXVI - Duration: 3 years

University of SALERNO

Title: "SCIENZE MATEMATICHE, FISICHE E INFORMATICHE"

Academic year: 2009 - Course: XXV - Duration: 3 years

University of BASILICATA

Title: "MATEMATICA APPLICATA ED INFORMATICA" Academic year: 2007 - Course: XXIII - Duration: 3 years

## **Related Didactic Activities**

Prof. Giuseppe Scanniello from 2001 has been a lecturer for many courses aimed at improving the professional qualification of learners in the field of the computer programming and ICT, in general. A (short) list of these courses follows: "Ricerca di lavoro on-line e preparazione del curriculum" SCHOLA Project at the University of Salerno; "Introduzione alla Programmazione" POR Campania 2000/2006; "Architetture per il Mobile Computing" METODA S.p.A.; "Ricerca di lavoro su web e banche dati" Centro d'Ateneo per l'Orientamento ed il Tutorato (CAOT) at the University of Salerno; "Web e multimedia" POR Campania 2000/2006; "Sistemi informativi su Web 1" POR Campania 2000/2006; "Sistemi informativi su Web 2" POR Campania 2000/2006; "Introduzione alla Programmazione in Java" Department of Cultural Heritage at the University of Salerno; "Web Engineering e Web Mining" First Project of MiUR; "Programmazione in Java" ADECCO; "Recupero capacità linguistico/espressive con uso sistematico del laboratorio multimediale" at the "Leonardo Da Vinci" Institute of Sapri (Salerno).

#### **Invited Talks**

- "Assessing the Effect of Screen Mockups on the Comprehension of Functional Requirements" Universitat Politècnica de València, Valencia, Spain.
- "Assessing the Effectiveness of Sequence Diagrams in the Comprehension of Functional Requirements" Universitat Politècnica de València, Valencia, Spain.

- "Unreachable Methods" University of Oulu, Finland.
- "Short Research/Traveling Stories" University of Oulu, Finland.
- "On the Effect of UML-Based Models on Source-Code Comprehensibility" Free University of Bozen,
- "Source Code Textual Information in Software Evolution Practice: Does It Matter?" l'Univeristà Federico II di Napoli, Italy.
- "Experimental Evaluation of Legacy System Migration Technologies" University of Salerno, Italy. "MELIS: An Eclipse Based Environment for the Migration of Legacy Systems to the Web" -International School on Software Engineering, University of Salerno, Italy.
- "Identifying Cloned Patterns in Web Applications" International School on Software Engineering, University of Salerno, Italy.

#### **Short Invited Visiting Periods**

- University of Oulu, Finlandia (September/October 2016).
- Universitat Politècnica de València, Valencia, Spain (November 2016)

SALERNO, Italy (05/11/2020)

22