

Curriculum Vitae et Studiorum

of Lidia Fotia

1. Studies

1.1 University Studies

- On May 13th 2014, she got her PhD. The title of his thesis is “*Social Networks and Privacy Issues*”.
- In the first session of the year (2010-2011), she passed the State exam to practice as an Engineer.
- On March 2009, she completed her MsC in Telecommunication Engineering (summa cum laude). The title of her thesis is: “An approach based on the analysis of actions for recommending, to a user, similar users, resources and social networks in a social internetworking scenario”.
- On October 2010 she completed his BsC.

1.2 Further Studies

Lidia Fotia attended the following PhD Schools:

- MODAP 2012- International Summer School on Privacy Aware Social Mining. July 1-6. Leysin, Switzerland.
- SecureCI 2016 - Winter School: Securing Critical Infrastructures. January, Cortina, Italy.

2. Awards and Acknowledgments

- Lidia Fotia has won the Best Paper Award for the following article: A. Comi, L. Fotia, F. Messina, G. Pappalardo, D. Rosaci and G.M.L. Sarne. A Distributed Reputation-based Framework for resource sharing between mobile and residential peers. Proceedings of the 9th International Conference on Distributed Computing (IDC 2015). Guimarães, Portugal, 2015.

3. Job and Visiting Positions

3.1 Job Positions

- From October 2020 to today, Lidia Fotia was a post-doctoral researcher at the University of Calabria (UNICAL), DIMES department.

Specifically:

- she was post-doctoral researcher under the (Assegno di Ricerca) program “Modelli, algoritmi e architetture per sistemi IoT trusted basati su edge computing”.

- From July 2019 to June 2020, Lidia Fotia was a post-doctoral researcher at the Computer Engineering Group of the University Mediterranea of Reggio Calabria (UNIRC), DICEAM department.

Specifically:

- she was post-doctoral researcher under the (Assegno di Ricerca) program “Blockchains e resilienza nelle reti” (Project: GEECCO (H2020-SwafS-03-2016-2017) EU project 741128).

– From 2013 to 2018, Lidia Fotia was a post-doctoral researcher at the Computer Engineering Group of the University Mediterranea of Reggio Calabria (UNIRC), DIIES department.

Specifically:

- from 2014 to 2018, she was post-doctoral researcher under the (Assegno di Ricerca) program “Attacchi informatici e protezione dell’identità digitale nei servizi online di pagamento elettronico” (Cyber attacks and protection of the digital identity in e-payment services) within the “Cyber Security District” (Project 2: Digital Services and E-payment Protection; Project 3: Secure De-materialization) a project of the Programma Operativo Nazionale (PON) Ricerca e Competitività 2007-2013.

– From 2013 to 2017 Lidia Fotia was part of the research group “Security, Social Networks, and Trust (STS)” local UNIRC unit of the CINI National Cybersecurity Lab and of the Cybersecurity District.

– From 20 March 2014 to 2 April 2014, she was a collaborator at Naos Evolutions S.r.l. with headquarters in via Murano n. 17, Catanzaro (CZ), Italy.

– From 9 December 2014 to 17 December 2014 she was a collaborator at Naos Evolutions S.r.l. with headquarters in via Murano n. 17, Catanzaro (CZ), Italy.

3.2 Further International Collaborations and Communication Skills

During his career, Lidia Fotia worked closely with research colleagues from the same University, department staff and, also, external contacts from very prestigious Universities, such as:

- University of Hyderabad Campus, Gachibowli, Telangana (C.R.Rao Advanced Institute of Mathematics, Statistics and Computer Science (AIMSCS)),
- University of Catania (Department of Mathematics and Informatics),
- University of Calabria (Logic Programming research unit).

4. Research Activities

Lidia Fotia is author of about 38 scientific papers published or submitted to International Journals and prestigious International Conferences . The main topics of these activities are: information security, trust, privacy, data science, social network analysis, recommender systems and IoT. The following are the research metrics of Lidia Fotia according to Google Scholar and Scopus:

	Publication	Citations	H-Index
Scholar	40	321	14
Scopus	37	272	13

Table 1. Bibliometric Indicators.

5. Teaching Experience

From January 2010, Lidia Fotia has been teaching assistant and tutor of the following BsC courses in Information Engineering at the University Mediterranea of Reggio Calabria:

- Foundations of Informatics.
- Algorithms and Data Structures.

Moreover, she has been teaching assistant of the following MSc courses in Information Engineering at the same University:

- Information Security.

In more details, she held the following course modules:

- A set of lectures of concurrent programming in Java.
- A set of seminars on cryptography, electronic voting and digitized management of the public administration.

In 2017 and 2018, she held two courses entitled: “Databases and graphical interfaces” and “IT systems for logistics and transport management” at ITS: Institute “Tecnico Superiore per l’Infomobilità e le infrastrutture logistiche” ITS “PEGASUS”, Reggio Calabria.

In 2017 and 2018, she performed the tutoring contract (100 hours) relating to the "IT" discipline at Liceo Scientifico “Leonardo da Vinci”, Reggio Calabria.

5.1 Seminars and Talks

- In May 2019, Lidia Fotia has been invited to hold a seminar on “Trust and IoT” at the University of Calabria, Italy.
- In June 2019, Lidia Fotia has been invited to hold two seminar on “Trust Management in Multi Agent Systems” and “Trust Management and IoT” and at the University of Calabria, Italy.

5.2 Student Supervisor

- Lidia Fotia has been supervisor and co-supervisor of a MSc thesis and practical training supervisor, therefore, he is experienced in working with a wide range of students.

6. Editorial Boarding and Conference Organization

Editorial Board Member of International Journals:

- International Journal of Grid and Utility Computing.
- Journal of Universal Computer Science.

Technical Program Committee Member for International Conferences:

- International Workshop "From Objects to Agents" (WOA)
- IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE)
- Multi Agent Systems & Social Network (MAS & SN) AI*IA WORKSHOP
- “Convergence of Distributed Clouds, Grids and their Management” (CDCGM), a track of the IEEE International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises (WETICE)
- International Conference on Emerging Internet, Data & Web Technologies (EIDWT)
- International Symposium on Intelligent Distributed Computing (IDC)
- Workshop on Computer based processes and algorithms for biomedicine and life quality improvement (CBPBL)
- International Conference on Smart Cities, Systems, Devices and Technologies (SMART)

- International Conference on Complex, Intelligent, and Software Intensive Systems (CISIS)
- Workshop on Secure IoT, Edge and Cloud systems (SloTEC)
- WORKSHOP on Computer Based Processes and Algorithms for Biomedicine and Life Quality Improvement (CBPBL)

- Web Publicity Co-Chairs for the 14th International Symposium on Intelligent Distributed Computing (IDC'20), Scilla (RC).

- Organizing Committee for the 18th International Workshop "From Objects to Agents" (WOA'17), Scilla (RC).

- Organizing Committee for the 21st National Congress on "Sistemi Evoluti per Basi di Dati" (SEBD'13), Roccella Jonica (RC).

Lidia Fotia has been session chair in a number of International Conferences, such as 12th International Conference on P2P, Parallel, Grid, Cloud and Internet Computing (3PGCIC 2017), 13th International Conference on Complex, Intelligent, and Software Intensive Systems (CISIS 2019), 14th International Conference on Complex, Intelligent, and Software Intensive Systems (CISIS 2020).

Moreover, she has served as referee for several International Journals and Conferences such as, for instance, Information Sciences, Expert Systems With Applications, Transactions on Service Computing, Multiagent and Grid Systems, Applied Computing and Informatics, Electronic Commerce Research and Applications, Future Generation Computer Systems, Ad Hoc Networks, The Computer Journal, Journal of Computers and Electrical Engineering, International Journal of Grid and Utility Computing, Journal of Network and Computer Applications, Journal of Electronic Commerce Research and Applications, Sustainability, Sensors, Electronics, Energies, Symmetry, IEEE Access, Mathematics, Complexity, Future Internet, International Conference on Smart Cities, Systems, Devices and Technologies (SMART 2019), 26th IEEE International Conference on Enabling Technologies (WETICE 2019), 15th IEEE International Conference on Networking, Sensing and Control (ICNSC 2018), 26th IEEE International Conference on Enabling Technologies (WETICE 2017), 6th edition of the Convergence of Distributed Clouds, Grids and their Management (CDCGM 2017), SEBD 2013 (Convegno Nazionale sui Sistemi Evoluti per Basi di Dati).

7. Research Projects

Lidia Fotia participates to a number of research projects. In the following projects she took part to both the proposal and their development.

- "Cyber Security District" (Project 2: Digital Services and E-payment Protection; Project 3: Secure De-materialization) a project of the Programma Operativo Nazionale (PON) Ricerca e Competitivit`a 2007-2013. The project started in October 2013.

- PRIN TENACE (Protecting National Critical Infrastructures from Cyber Threats).The project has been carried out from February 2013 to January 2016.

- "inMoto" (Information MObility for TOurism), a project of the Programma Operativo Nazionale (PON) Ricerca e Competitivit`a 2007-2013. The project has been carried out from April 2013 to December 2015.

8. Scientific Prototypes

Lidia Fotia contributed to the creation of a prototype system: A system for recommending users, resources and similar social networks, based on the analysis of the actions of the users involved in a Social Internetworking scenario. This system is intended to recommend to a user users, resources and similar social networks in a scenario of Social Internetworking. The system presents interesting innovations compared to existing related systems. First of all, it operates in a context of Social Internetworking and not only on a single social network. Furthermore, it considers not only the explicit relationships between users but also the implicit ones that connect users on the basis of shared interests and behaviors; the latter are derived from the analysis of user actions in the Social Internetworking scenario under consideration. Finally, it considers the presence of possible semantic anomalies that involve the description of users, resources and available social networks.

9. Publications

International journal

1. Buccafurri F., Caridi D., Fotia L., Lax G., Nocera A., Ursino D., A Clustering-based Analysis of a Social Internetworking Scenario, *International Journal of Society Systems Science* 8, n. 6, 2014, pp. 101-119, ISSN: 1756-2511.
2. F. Buccafurri, L. Fotia, and G. Lax. A privacy-preserving e-participation framework allowing citizen opinion analysis. *Electronic Government, An International Journal*, n. 11, 2015, pp. 185-206, ISSN: 1740-7494.
3. Francesco Buccafurri, Lidia Fotia, Gianluca Lax, Vishal Saraswat Analysis-Preserving Protection of User Privacy against Information Leakage of Social-Network Likes. *Information Science*, n. 328, 2016, pp. 340-358, ISSN: 0020-0255.
4. A. Comi, L. Fotia, F. Messina, G. Pappalardo, D. Rosaci and G.M.L. Sarnè. Combining Reputation and QoS measures to improve Cloud Service Composition. *International Journal of Grid and Utility Computing*, Inderscience, ISSN: 1741-847X, vol. 7, Issue 2, 2017, Pages 142-151, doi: 10.1504/IJGUC.2017.085915.
5. A. Comi, L. Fotia, F. Messina, D. Rosaci and G.M.L. Sarnè. A partnership-based approach to improve QoS on Federated Computing Infrastructures. *Information Sciences*, ISSN: 0020-0255, vol. 367-368, 1 November 2016, pp. 246-258, doi: 10.1016/j.ins.2016.05.051
6. L. Fotia, F. Messina, D. Rosaci, G.M.L. Sarnè. Using Local Trust for Forming Cohesive Social Structures in Virtual Communities *The Computer Journal*, ISSN: 0010-4620, vol.60, issue 11, 0 A 2017, pp. 1717-1727, doi: 10.1093/comjnl/bxx072
7. P. De Meo, L. Fotia, F. Messina, D. Rosaci, G.M.L. Sarnè. Providing recommendations in social networks by integrating local and global reputation. *Information Systems, Information Systems (IS)*, ISSN: 1365-2575; vol., issue n., pp. 1-45, doi: 10.1016/j.is.2018.07.002.

8. Zema, D. A., Lucas-Borja, M. E., Fotia, L., Rosaci, D., Sarnè, G. M., & Zimbone, S. M. (2020). Predicting the hydrological response of a forest after wildfire and soil treatments using an Artificial Neural Network. *Computers and Electronics in Agriculture*, 170, 105280.
9. Fortino, G., Fotia, L., Messina, F., Rosaci, D., & Sarné, G. M. (2020). A meritocratic trust-based group formation in an IoT environment for smart cities. *Future Generation Computer Systems*, 108, 34-45.
10. Fortino, Giancarlo, Lidia Fotia, Fabrizio Messina, Domenico Rosaci, and Giuseppe ML Sarné. "Trust and Reputation in the Internet of Things: State-of-the-Art and Research Challenges." *IEEE Access* 8 (2020): 60117-60125.
11. L. Fotia, F. Messina. G.M.L. Sarnè, D. Rosaci. Discovering Trust-based Groups in Research Network. Submitted to an international journal.

International conferences

11. Buccafurri F., Fotia L., Lax G., Privacy-Preserving Evaluation in Social Network, 2012 Tenth Annual International Conference on Privacy, Security and Trust (PST), Paris, France, 16th-18th July 2012: pp. 51-58. ISBN: 978-1-4673-2323-9. DOI: 10.1109/PST.2012.6297919. IEEE
12. Buccafurri F., Fotia L., Lax G., Allowing Continuous Evaluation of Citizen Opinions through Social Networks, Proceedings of the Joint International Conference on Electronic Government and the Information Systems Perspective, and Electronic Democracy, EGOVIS/EDEM 2012, pp. 242-253, ISBN: 978-3-642-32700-1.
13. Buccafurri F., Fotia L., Lax G., Allowing Privacy-Preserving Analysis of Social Network Likes, 2013 Eleventh Annual International Conference on Privacy, Security and Trust (PST), Tarragona, Spain, 10th-12th July 2013: pp 36-43. ISBN: 978-1-4673-5837-8. IEEE
14. Buccafurri F., Fotia L., Lax G., Allowing Non-Identifying Information Disclosure in Citizen Opinion Evaluation, Technology-Enabled Innovation for Democracy, Government and Governance - Second Joint International Conference on Electronic Government and the Information Systems Perspective, and Electronic Democracy, (EGOVIS and EDEM 2013), Prague, Czech Republic (DEU), 26th-28th August, Vol. 8061, 2013, pp. 241-254, ISBN: 978-3-642-40159-6. Springer.
15. Buccafurri F., Fotia L., Lax G., Social Signature: Signing by Tweeting, Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics): 3rd International Conference on Electronic Government and the Information Systems Perspective, EGOVIS 2014, Munich, Germany, 2014, , Vol. 8650, pp. 1-14, ISBN: 978-3-319-10177-4. Springer.
16. Comi A., Fotia L., Rosaci D., Improving the Social Capital of Trust-based Competitive Multi-Agent Systems by Introducing Meritocracy, Proceedings of the 2014 Federated Conference on Computer Science and Information Systems (MAS&S'14/FedCSIS), Warsaw, Poland, 7th-10th September, Vol. 2, pp. 1461-1466, DOI:10.15439/2014F81. IEEE
17. A. Comi, L. Fotia, F. Messina, D. Rosaci, Giuseppe M. L. Sarnè. A QoS-Aware, Trust-Based Aggregation Model for Grid Federations. On the Move to Meaningful Internet Systems: OTM 2014

Conferences - 22nd International Conference on Cooperative Information Systems (CoopIS 2014) , Lecture Notes in Computer Science Volume 8841, 2014, p 277-294, Springer, 27-31 October 2014, Amantea, Italy. ISBN=978-3-662-45562-3 DOI: 10.1007/978-3-662-45563-0_16 URL: http://dx.doi.org/10.1007/978-3-662-45563-0_16

18. F. Buccafurri, L. Fotia, G. Lax and Rocco Mammoliti. Enhancing Public Digital Identity System (SPID) to Prevent Information Leakage. Proc. of EGOVIS 2015 - Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics): 4th International Conference on Electronic Government and the Information Systems Perspective, Valencia, Spain, September 1 - 4, 2015, Vol. 9265, 2015, pp. 57-70. ISBN: 978-3-319-22389-6. Springer.

19. Francesco Buccafurri, Lidia Fotia, Angelo Furfaro, Alfredo Garro, Matteo Giacalone, Andrea Tundis. An Analytical Processing Approach to Supporting Cyber-Security Compliance Assessment. SINCONF 2015 - The 8th International Conference on Security of Information and Networks, Sochi/Russia September 8 – 10, 2015, pp. 46-53, ACM.

20. A. Comi, L. Fotia, F. Messina, G. Pappalardo, D. Rosaci and G.M.L. Sarnè. A Distributed Reputation-based Framework for resource sharing between mobile and residential peers. Intelligent Distributed Computing IX, Studies in Computational Intelligence, Springer, Guimares, Portugal, 7th-9th October 2015. pp. 211-222, Series ISSN 1860-949X.

21. A. Comi, L. Fotia, F. Messina, G. Pappalardo, D. Rosaci and G.M.L. Sarnè. Forming Homogeneous Classes for e-Learning in a Social Network Scenario. Intelligent Distributed Computing IX, Guimares, Portugal, 7th-9th October 2015, Series Studies in Computational Intelligence, pp. 131-142, ISSN 1860-949X, Springer.

22. A. Comi, L. Fotia, F. Messina, G. Pappalardo, D. Rosaci and G.M.L. Sarnè. Supporting knowledge sharing in heterogeneous Social Network thematic Groups. Complex, Intelligent And Software Intensive Systems (CISIS), 2015 9th International Conference on, pp. 480-485, IEEE Computer Society, Blumenau, Brazil, 08-10/07/2015. doi: 10.1109/CISIS.2015.71. ISBN: 978-1-4799-8869-3.

23. A. Comi, L. Fotia, F. Messina, G. Pappalardo, D. Rosaci and G.M.L. Sarnè. Using Semantic Negotiation for Ontology Enrichment in E-Learning Multi Agent Systems. Complex, Intelligent And Software Intensive Systems (CISIS), 2015 9th International Conference on, pp. 474-479, IEEE Computer Society, Blumenau, Brazil, 08-10/07/2015. doi: 10.1109/CISIS.2015.70. ISBN: 978-1-4799-8870-9.

24. A. Comi, L. Fotia, F. Messina, G. Pappalardo, D. Rosaci, G.M.L. Sarnè. A Reputation-based approach to improve QoS in Cloud Service Composition. 24th IEEE WETICE Conference 2015, pp 108-113, IEEE Computer Society. Larnaca, Cyprus, 15-17/06/2015. doi: 10.1109/WETICE.2015.228. ISBN: 978-1-4673-7692-1.

25. A. Comi, L. Fotia, F. Messina, G. Pappalardo, D. Rosaci, G.M.L. Sarnè. An evolutionary approach for Cloud learning agents in multi-cloud distributed contexts. 24th IEEE WETICE Conference 2015, pp 99-104, IEEE Computer Society. Larnaca, Cyprus, 15-17/06/2015. doi: 10.1109/WETICE.2015.27. ISBN: 978-1-4673-7692-1.

26. Francesco Buccafurri, Lidia Fotia, Gianluca Lax, Serena Nicolazzo and Antonino Nocera. A new approach for electronic signature. Proceedings of the 2nd International Conference on Information Systems Security and Privacy (ICISSP 2016), Contributo in Atti di convegno, 2016, pp. 440-447, ISBN: 9789897581670.
27. Francesco Buccafurri, Lidia Fotia, Gianluca Lax, Serena Nicolazzo and Antonino Nocera. Trust, Security and Privacy in Smart Cities. I-CiTies 2015 CINI Annual Workshop on ICT for Smart Cities & Communities October 29-30, 2015 – Palermo, Italy
28. A. Comi, L. Fotia, F. Messina, D. Rosaci and G.M.L. Sarnè. GroupTrust: Finding Trust-based Group Structures in Social Communities. Intelligent Distributed Computing X, Paris, France, 10th-12th October 2016, Volume 678 of the series Studies in Computational Intelligence pp 143-152, ISBN: 978-3-319-48828-5, ISSN 1860-949X, Springer.
29. P. De Meo, L. Fotia, F. Messina, D. Rosaci and G.M.L. Sarnè. Forming Classes in an e-Learning Social Network Scenario. Intelligent Distributed Computing X, Paris, France, 10th-12th October 2016, Volume 678 of the series Studies in Computational Intelligence pp 173-182, ISBN: 978-3-319-48828-8, ISSN 1860-949X, Springer.
30. F. Buccafurri, L. Fotia, G. Lax. Implementing electronic signature by Public Digital System (SPID). EGOVIS 2016, 1-4 September, 2016, Lecture Notes in Computer Science (including subseries Lecture Notes in Artificial Intelligence and Lecture Notes in Bioinformatics): 5th International Conference on Electronic Government and the Information Systems Perspective, EGOVIS 2016, Porto (Portugal), 2016, pp. 289-303.
31. L. Fotia. Generating trust-based recommendations for social networks organized by groups. 18th Workshop "from Objects to Agents" (WOA-2017). CEUR Workshop Proceedings of, V Vol.1867, p. 25-30, Scilla, Reggio Calabria, Italy, 15-16/06/2017 ISSN:1613-0073
32. L. Fotia, F. Messina, D. Rosaci and G.M.L. Sarnè. On the impact of trust relationships on social network group formation. 18th Workshop "from Objects to Agents" (WOA-2017). CEUR Workshop Proceedings of, V Vol.1867, p. 25-30, Scilla, Reggio Calabria, Italy, 15-16/06/2017 ISSN:1613-0073
33. P. De Meo, L. Fotia, F. Messina, D. Rosaci and G.M.L. Sarnè, Forming classes in an e-Learning social network scenario. Intelligent Distributed Computing X, Paris, France, 10th-12th October 2016, Volume 678 of the series Studies in Computational Intelligence pp 173-182, ISBN: 978-3-319-48828-8, ISSN 1860-949X, Springer.
34. L. Fotia. Recommending Items in Social Networks using Cliques-Based Trust. WOA 2018 (19th Workshop "From Objects to Agents") CEUR Workshop Proceedings of, VI Vol.2215 pp 51-56, Palermo, Italy, 28-29 June 2018.
35. A. Comi, L. Fotia. Combining reliability, reputation and honesty to enhance QoS on Federated Computing Infrastructures. WOA 2018 (19th Workshop "From Objects to Agents") CEUR Workshop Proceedings of, VI Vol.2215 pp 45-50, Palermo, Italy, 28-29 June 2018.
36. Giancarlo Fortino, Lidia Fotia, Fabrizio Messina, Domenico Rosaci, Giuseppe M. L. Sarnè. Forming Groups in the Cloud of Things Using Trust Measures. Proceedings of the 12th International Conference on Distributed Computing (IDC 2018), (pp. 298-308). Springer, Cham.

37. Fortino, G., Fotia, L., Messina, F., Rosaci, D., & Sarné, G. M. Supporting Agent CoT Groups Formation by Trust. In WOA 2019 (Vol. 2404, pp. 71-76). CEUR Workshop Proceedings.
38. Fortino, G., Fotia, L., Messina, F., Rosaci, D., & Sarné, G. M. (2019, October). Using Trust and “Utility” for Group Formation in the Cloud of Things. In International Conference on Internet and Distributed Computing Systems (pp. 112-122). Springer, Cham.
39. Fortino, G., Fotia, L., Messina, F., Rosaci, D., & Sarné, G. M. A Reputation Mechanism to Support Cooperation of IoT Devices. In AI & IoT jointly held with AI* IA 2019, the 18th International Conference of the Italian Association for Artificial Intelligence (pp. 1-12). CEUR.

National conferences

40. Francesco Buccafurri, Lidia Fotia, Gianluca Lax, Serena Nicolazzo and Antonino Nocera. A lightweight electronic signature scheme using Twitter. Proc. of SEBD 2015 - 23rd Italian Symposium on Advanced Database Systems, pp. 160-167, Gaeta, Italy, Giugno 14--17, 2015.

Reggio Calabria, August 25, 2020

Lidia Fotia