

Ten Career-Best Research Outputs

1. **Jolfaei, A.**, Wu, X., and Muthukkumarasamy, V. 2016. On the Security of Permutation-Only Image Encryption Schemes, *IEEE Transactions on Information Forensics and Security*, 11, 2, 235–246.
 2. **Jolfaei, A.**, Wu, X., and Muthukkumarasamy, V. 2015. A 3D Object Encryption Scheme Which Maintains Dimensional and Spatial Stability, *IEEE Transactions on Information Forensics and Security*, 10, 2, 409–422. (received the prestigious IEEE Australian Council Award and a travel grant by the IEEE Signal Processing Society to present the paper at IEEE WIFS 2015 in Rome, Italy)
 3. **Jolfaei, A.** and Kant, K. 2018. A Lightweight Integrity Protection Scheme for Low Latency Smart Grid Applications, *Computers & Security*, Elsevier, October 2018.
 4. **Jolfaei, A.**, Wu, X., and Muthukkumarasamy, V. 2014. On the security of diffusion-substitution based gray image encryption scheme. *Digital Signal Processing*, 32, 34–36.
 5. Ostovari, P., Wu, J., and **Jolfaei, A.** 2018. Data Exchange in Delay Tolerant Networks using Joint Inter- and Intra-Flow Network Coding, In *Proceedings of the 37th IEEE International Performance Computing and Communications Conference*, Orlando, FL, USA.
 6. Burke, W., Oseni, T., **Jolfaei, A.**, Gondal, I. 2019. Cybersecurity Indexes for eHealth, In *Proceedings of the 12th Australasian Conference on Health Informatics and Knowledge Management*, Article no. 17, Macquarie, NSW, Australia.
 7. Ur-Rehman, A., Gondal, I., Kamruzzaman, J., and **Jolfaei, A.** 2019. Vulnerability Modelling for Hybrid IT Systems, In *Proceedings of the 20th IEEE International Conference on Industrial Technology*, Melbourne, Australia, 1186–1191. (best paper award)
 8. Jaffar, I. Usman, M., and **Jolfaei, A.** 2019. Security Hardening for Implantable Cardioverter Defibrillators, In *Proceedings of the 20th IEEE International Conference on Industrial Technology*, Melbourne, Australia, 1173–1178. (received a recognition diploma with \$2000 cash award from the IEEE Industrial Electronics Society)
 9. **Jolfaei, A.** and Kant, K. 2017. A Lightweight Integrity Protection Scheme for Fast Communications in Smart Grid, In *Proceedings of the 14th International Conference on Security and Cryptography, Lecture Notes in Computer Science*, Madrid, Spain, 31–42.
 10. **Jolfaei, A.**, Wu, X., and Muthukkumarasamy, V. 2015. A Secure Lightweight Texture Encryption Scheme, In *Proceedings of the 7th Pacific-Rim Symposium on Image and Video Technology, Lecture Notes in Computer Science*, Auckland, New Zealand, 344–356.
-

Book Chapters

11. Kumar, S., Islam, S., and **Jolfaei, A.** 2019. Microgrid Communications – Protocols and Standards, In *Variability, Scalability, and Stability of Microgrid*, Eds. S.M. Muyeen and S. Islam, IET Book Series on Control, Robotics & Sensors.
12. R, V., Alazab, M., **Jolfaei, A.**, KP, S. and Poornachandran, P. 2019. DeepBotDetect (DBD): Detecting Domain Generation Algorithms with Deep Learning, In *Deep Learning Applications for Cyber Security*, Eds. M. Alazab and M.J. Tang, Advanced Sciences and Technologies for Security Applications, Springer.

Refereed Journal Articles

13. **Jolfaei, A.**, Matinfar, A., and Mirghadri, A. 2015. Preserving the Confidentiality of Digital Images Using a Chaotic Encryption Scheme. *International Journal of Electronic Security and Digital Forensics*, 7, 3, 258–277.
 14. **Jolfaei, A.**, Vizandan, A., and Mirghadri, A. 2012. Image Encryption Using HC-128 and HC-256 Stream Ciphers. *International Journal of Electronic Security and Digital Forensics*, 4, 1, 19–42.
 15. **Jolfaei, A.**, Mirghadri, A., and Vizandan, A. 2012. Impact of Rotations in Salsa20/8 Image Encryption Scheme. *International Journal of Computer Theory and Engineering*, 4, 6, 938–943.
 16. **Jolfaei, A.**, and Mirghadri, A. 2011. Image Encryption Using Chaos and Block Cipher. *Computer and Information Science*, 4, 1, 172–185.
 17. **Jolfaei, A.**, and Mirghadri, A. 2011. Substitution-Permutation Based Image Cipher Using Chaotic Hénon and Baker's Maps. *International Review of Computers and Software*, 6, 1, 40–54.
 18. Mirghadri, A., **Jolfaei, A.** 2011. A Novel Image Encryption Scheme Using Chaotic Maps. *The Scientific Journal of Passive Defence Science and Technology*, 2, 2, 111–124.
 19. **Jolfaei, A.**, and Mirghadri, A. 2010. An Image Encryption Approach Using Chaos and Stream Cipher. *Journal of Theoretical and Applied Information Technology*, 19, 2, 117–125.
 20. **Jolfaei, A.**, and Mirghadri, A. 2010. Survey: Image Encryption Using Salsa20. *International Journal of Computer Science Issues*, 7, 5, 213–220.
 21. **Jolfaei, A.**, and Mirghadri, A. 2010. Survey: Image Encryption Using A5/1 and W7. *Journal of Computing*, 2, 8, 1–7.
 22. **Jolfaei, A.**, and Mirghadri, A. 2010. A New Approach to Measure Quality of Image Encryption. *International Journal of Computer and Network Security*, 2, 8, 38–44.
 23. **Jolfaei, A.** 2011. Fabrication of a Simulator for Neuron Cell's Action Potential. *The Scientific Journal of Passive Defence Science and Technology*, 1, 2, 13–23.
-

Fully Refereed Conference Proceedings

24. Farivar, F., Haghghi, M.S., Barchinezhad, S., and **Jolfaei, A.** 2019. Detection and Compensation of Covert Service-Degrading Intrusions in Cyber Physical Systems through Intelligent Adaptive Control. In *Proceedings of the 20th IEEE International Conference on Industrial Technology*, Melbourne, Australia, 1143–1148.
25. **Jolfaei, A.** and Kant, K. 2019. Data Security in Multiparty Edge Computing Environments, In *Proceedings of the GOMACTech Conference, Artificial Intelligence & Cyber Security: Challenges and Opportunities for the Government*, Albuquerque, NM, USA.
26. Ahmad, U., Song, H., Bilal, A., Alazab, M., and **Jolfaei, A.** 2018. Secure Passive Keyless Entry and Start System Using Machine Learning, In *Proceedings of the International Conference on Security, Privacy and Anonymity in Computation, Communication and Storage*, Melbourne, Australia, 304–313.

27. R, V., Alazab, M., **Jolfaei, A.**, KP, S. and Poornachandran, P. 2018. Ransomware Triage Using Deep Learning: Twitter as a Case Study, In *Proceedings of the International conference on cyber security and communication systems*, Melbourne, Australia.
 28. **Jolfaei, A.**, Wu, X., and Muthukkumarasamy, V. 2013. On the Feasibility and Performance of Pass-thought Authentication Systems. In *Proceedings of the 2013 4th Emerging Security Technologies*, Cambridge, England, 33–38.
 29. **Jolfaei, A.**, Mirghadri, A., and Vizandan, A. 2011. Impact of Rotations in Salsa20/8 Image Encryption Scheme. In *Proceedings of the 4th IEEE International Conference on Computer Science and Information Technology*, Chengdu, China, 351–357.
 30. Mohammadi, S.A., Amoozegar, S., **Jolfaei, A.**, and Mirghadri, A. 2011. Enhanced Adaptive Bandwidth Tracking Using Mean Shift Algorithm. In *Proceedings of the 2011 International Conference on Computer and Network Engineering*, Zhengzhou, China, 494–498.
 31. **Jolfaei, A.** and Mirghadri, A. 2010. An Applied Imagery Encryption Algorithm Based on Shuffling and Baker's Map. In *Proceedings of the 2010 International Conference on Artificial Intelligence and Pattern Recognition*, Florida, USA, 279–285.
 32. **Jolfaei, A.** and Mirghadri, A. 2010. A Novel Image Encryption Scheme Using Pixel Shuffler and A5/1. In *Proceedings of the 2010 International Conference on Artificial Intelligence and Computational Intelligence*, Sanya, China, 369–373.
 33. **Jolfaei, A.**, Mirghadri, A., Madadi, B., and Naderi, G. 2010. Internal Optical Wireless Communication System. In *Proceedings of the First Student Conference on Electrical Region of Research Achievements*, Apr. 15, Kazeroun, Iran.
 34. **Jolfaei, A.**, Mirghadri, A., and Madadi, B. 2010. Application of Semiconductor Lasers in Optical Communication Systems. In *Proceedings of the First Student Conference on Electrical Region of Research Achievements*, Kazeroun, Apr. 15, Kazeroun, Iran.
 35. Moharamzadeh, N., **Jolfaei, A.**, and Haghani, N. 2010. Presenting a New Method in Designing a Dual Channel Electromyography with Motion Classifying Capability Using Fuzzy Logic. In *Proceedings of the First Student Conference on Electrical Region of Research Achievements*, Apr. 15, Kazeroun, Iran.
 36. Madadi, B., **Jolfaei, A.**, Attaran, A., and Nikan, S. 2010. An Optimum Routing Method in Ad Hoc Networks. In *Proceedings of the 15th National Computer Conference*, Feb., Tehran, Iran.
 37. **Jolfaei, A.**, Moharamzadeh, N., and Haghani, N. 2010. Assessment of Blood Glucose and Pregnancy Using Diagnostic Tests Strips and MATLAB. In *Proceedings of the 13th Iranian Student Conference on Electrical Engineering*, Sep., Tehran, Iran, 15–17.
 38. **Jolfaei, A.** and Mirghadri, A. 2010. A New Classification in Measurement Methods of Image Encryption Quality. In *Proceedings of the 2010 International Conference on Intelligent Network and Computing*, Kuala Lumpur, Malaysia.
 39. **Jolfaei, A.** 2010. Presenting a New Method in Analyzing Cellular Electrophysiology Using Microcontroller. In *Proceedings of the First National Congress on Novel Technologies in Engineering Sciences*, May 20, Mashhad, Iran.
-

Fully Refereed Conference Proceedings (poster presentations)

40. **Jolfaei, A.**, Wu, X., and Muthukkumarasamy, V. 2015. A 3D Object Encryption Scheme Which Maintains Dimensional and Spatial Stability, In *Proceedings of the 7th IEEE International Workshop on Information Forensics and Security*, Nov., Rome, Italy.
41. **Jolfaei, A.**, Wu, X., and Muthukkumarasamy, V. 2015. 3D Content Encryption in Augmented Reality, *IEEE 30 years celebration event*, IEEE Queensland Section, University of Queensland, Brisbane, Australia, Feb. 2015.