

Big Data Analytics, Security and Privacy Issues in Smart Grid Systems

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Abstract

Big data has great potential to provide opportunities not only many fields but also energy enhancing technical, organizational, social and economic gains and contributions. The current potential of applying big data approaches for better planning, managing, designing, and securing power grid operations are very challenging tasks and needs significant efforts. The tutorial will cover the issues of computational complexity, data security and privacy, cost, management, planning and integration of big data into power grid systems and also focus on the key challenges in big data analytics, privacy and security issues.



Prof. Dr. Şeref Sağıroğlu completed his undergraduate education at Erciyes University, Department of Electronics Engineering. He completed his doctoral studies at the University of Wales College of Cardiff (now Cardiff University, UK) in 1994. He continues his academic career as the full professor in Software Engineering at Gazi University Computer Engineering Department. Sağıroğlu has an outstanding academic with more than 8000 citation; almost 400 articles published in SCI/SSCI indexed journals, national and international conferences, symposium and workshops.

Prof. Sağıroğlu:

- is author and/or editor of more than 20 books, owns 4 patents and has completed national and international projects on security, big data, intelligent modeling and control, biometric, etc.
- organised more than 50 national and international events on artificial intelligence, 5G, Big Data, Machine Learning, Deep Learning, Information and Cyber Security, Privacy, IPv6, etc. as a chairman or co-chairman. Some of them are: International Conference on Information Security and Cryptology (www.iscturkey.org); IEEE International Conference on Computer Science and Engineering (www.ubmk.org); IEEE Big Data, Deep Learning and Fighting Cyber Terrorisms (www.ibigdelft.org); IEEE International Conference on Machine Learning and Applications (www.icmla-conferences.org); Big Data Analytics, Security and Privacy Workshop (www.bigdatacenter.gazi.edu.tr); National Cyber Terrorism Conference (www.siberterror.org); Turkey Open Data Conference (www.acikveriturkiye.org); IEEE 5G Summit-Istanbul (www.ieeesummit.org); IPv6 Council Turkey (www.ipv6forumtr.org); National IPv6 Conference (www.ipv6.org).
- has been founding members of Information Security Association (www.bilgiguvenligi.org.tr); Member of IEEE Biometric Task Force; Turkish Science Research Foundation (www.tubav.org.tr), and The Foundation of the People Caring for the Future (www.gonder.org.tr). Sağıroğlu had such duties as President and Executive Committee Members of those NGOs.

- completed the duties as the Deans of Graduation School of Science and Technology and Engineering Faculty, and Head of Computer Engineering Department at Gazi University; Editors of International Journal of Information Security Science (www.ijiss.org); International Journal of Information Security Engineering (in Turkish) (www.dergipark.gov.tr/ubgmd) and CyberMag (www.cybermag.com); General Director of FutureTech (www.futuretech.com.tr); Member of Cyber Security Group of Higher Education Council of Turkey.
- contributed to consultants to Havelsan; IT Regulatory Body of Turkey (BTK) and Personal Data Protection Regulatory Body of Turkey (KVKK).
- has delivered as invited or keynote speakers more than 500 seminars, talks, conferences at universities, schools, sectors, TV and Radio Programs, institutions and organisations in the topics of Information Security, Big and Open Data, Cyber Security and Defense, Artificial Intelligence, Computer and Software Engineering, Privacy, Biometrics, Innovation Culture Creation, IPv6, 5G, etc.
- now is the director of AI and Big Data Center of Gazi University, Ankara Turkey.