

- Pijush, S., Sekhar, S. & Balas, V. E. (2017) *Handbook of Neural Computation*. London: Academic, an Imprint of Elsevier, 2017. Print.
- Qu, Zhiguo et al (2016). Multilevel pattern mining architecture for automatic network monitoring in heterogeneous wireless communication networks. In *China Communications*, vol. 13, no. 7, pp. 108-116.
- Raheem, M.A & Okereke, O.U. (2014) A Neural Network Approach to GSM Traffic Congestion Prediction. *American Journal of Engineering Research (AJER)* Volume-03, Issue-11, pp-131-138.
- Rey, Tim, et al. (2012) Applied Data Mining for Forecasting Using SAS. SAS Institute Copy bibliography citation
- Rosset, S., Neumann, E., Eick, U., & Vatnik (2003). Customer lifetime value models for decision support. *Data Mining and Knowledge Discovery*, 7(3), 321- 339.
- Sanders, H. T. (1998) A contribution to the study of actuarial and individual methods of prediction. *Convention center follies, The Public Interest*, 132, 58–72
- Sasisekharan, R., V. Seshadri, & S.m. Weiss. (1993) Proactive Network Maintenance Using Machine Learning. *Proceedings of GLOBECOM '93. IEEE Global Telecommunications Conference*, doi:10.1109/glocom.
- Sasisekharan, R., Seshadri, V., & Weiss, S. M. (1996). Data mining and forecasting in large-scale telecommunication networks. *IEEE Expert*, 11(1), 37-43.
- Strouse, K. G. (1999) *Marketing Telecommunications Services: New Approaches for a Changing Environment*, Artech House, Norwood.
- Tripathi, S., Bhardwaj, A., & E, P. (2018). Approaches to Clustering in Customer Segmentation. *International Journal of Engineering & Technology*, 7(3.12), 802-807. doi:http://dx.doi.org/10.14419/ijet.v7i3.12.16505
- Tuovila, Alicia (2019) <<https://www.investopedia.com/terms/f/forecasting.asp>> Updated Aug 8, 2019
- Velayati, M., Shahriari, M., & Hosseinzadeh Lotfi, F. (2019) Classifying the Customers of Telecommunication Company in order to Identify Profitable Customers Based on Their First Transaction, Using Decision Tree: A Case Study of System 780, *Journal of Optimization in Industrial Engineering*, 12(2).
- Wei, C., & Chiu, I (2002). Turning telecommunications call details to churn prediction: A data mining approach. *Expert Systems with Applications*, 23(2), 103-112.
- Ye, L., Qiuru, C., Haixu, X., Yijun, L., & Guangping, Z. (2013) Customer segmentation for telecom with the k-means clustering method. *Inf. Technol. J.* 12(3), 409–413.
- Zaleski, A., & Kacprzak, T. (2010). Packet switching networks traffic prediction based on radial basis function neural network.
- Zhao, G. F., Tang, H., Xu, W. B., & Zhang, Y. H. (2004). Application of neural network for traffic forecasting in telecom networks. In *Proceedings of 2004 International Conference on Machine Learning and Cybernetics (IEEE Cat. No. 04EX826) (Vol. 4, pp. 2607-2611)*. IEEE.
- Zhou, C. & Lin, Z. (2018). Study on fraud detection of telecom industry based on rough set, *IEEE 8th Annual Computing and Communication Workshop and Conference (CCWC)*, pp. 15-19, 2018, January.

Biographies

Saber Kh. Elmabrouk is a talented veteran with over 20 years of experience teaching and researching in Modeling, Artificial Intelligence and Data Mining, Big Data, Information System Management, Uncertainty analysis, and Risk Management. He received his Ph.D. in Petroleum Engineering from Regina University in Canada. Prior to his Ph.D., he had earned his Master and Bachelor degrees in Petroleum Engineering from the University of Tripoli, Libya. He is currently department head of Chemical and Petroleum Engineering at Libyan Academy, Janzour, Libya. In addition, he is an adjunct faculty with department of Engineering Project Management at Faculty of Engineering, University of Tripoli, Libya.

Alhasan Nureddin Salem holds a M.Sc. in Engineering Management from Libyan Academy, Janzour in 2019 and a B.Sc. degree in electrical and electronic engineering from University of Zawia, Libya in 2001. Mr. Alhasan began his career at ABB in 2002 as an energy management engineer. Subsequently, in 2005, he worked for Libyana Mobile Phone Company, where he began working as a wireless radio engineer, then supervised the mobile installation phase of GSM Mobile projects from 2005 to 2007. He is then a mobile switching engineer from 2008 to 2009, and in 2010-2012 worked as an expert in wireless network quality in the field of performance management. He is a radio network planning manager in telecommunications projects for the period 2013-2015 and a director of management for 3G and 4G mobile technologies for the period 2016-2017. Currently Mr. Alhasan is an expert in core network strategy and planning in Libyana Mobile Phone Company.