List of Publications

Capital University of Science and Technology

- [1] Q.-u.-d. Memon, U. F. Ahmed, and M. M. Ahmed, "A Schrödinger-Poisson model for output characteristics of trigate ballistic Si fin field effect transistors (FinFETs)," *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, vol. 35, no. 1, p. e2927, 2022.
- [2] R. F. Masood, I. A. Taj, M. B. Khan, M. A. Qureshi, and T. Hassan, "Deep Learning based Vertebral Body Segmentation with Extraction of Spinal Measurements and Disorder Disease Classification," *Biomedical Signal Processing and Control*, vol. 71, p. 103230, 2022.
- [3] S. Bano, M. R. Azam, A. A. Uppal, S. B. Javed, and A. I. Bhatti, "Robust p53 recovery using chattering free sliding mode control and a gain-scheduled modified Utkin observer," *Journal of theoretical biology*, vol. 532, p. 110914, 2022.
- [4] M. Naeem, M. Ashraf, and U. A. Khan, "A robust auto-synchronizer for synchron-verter," *Computers & Electrical Engineering*, vol. 98, p. 107661, 2022.
- [5] M. Khan, M. Cao, X. Chaopeng, and M. Ali, "Experimental and analytical study of hybrid fiber reinforced concrete prepared with basalt fiber under high temperature," *Fire and Materials*, vol. 46, no. 1, pp. 205–226, 2022.
- [6] S. Kihombo, A. I. Vaseer, Z. Ahmed, S. Chen, D. Kirikkaleli, and T. S. Adebayo, "Is there a tradeoff between financial globalization, economic growth, and environmental sustainability? An advanced panel analysis," *Environmental Science and Pollution Research*, vol. 29, p. 3983–3993, 2022.
- [7] S. Faiz, N. Mubarak, S. Safdar, and J. Khan, "A "Curates Egg" Perception of Politics: Why and When Organizational Politics Leads to Good and Bad Outcomes," Performance Improvement Quarterly, vol. 34, no. 4, pp. 627–648, 2022.
- [8] A. Batool, G. A. Miana, M. Alam, M. T. Khan, M. Muddassir, W. Zaman, S. Khan, A. Aman, A. Khusro, M. V. Arasu et al., "Bioassay-guided fractionation and isolation of Arctigenin from Saussurea heteromalla for in vitro and in silico cytotoxic activity against HeLa cells," Physiological and Molecular Plant Pathology, vol. 117, p. 101749, 2022.
- [9] M. A. Chaudhary and M. M. Ahmed, "Inline pseudoelliptic waveguide filters using asymmetric Iris coupled transverse rectangular ridge resonators," *International Journal of Microwave and Wireless Technologies*, pp. 1–9, 2021.

- [10] K. S. Karimov, M. Saleem, K. M. Akhmedov, M. M. Ahmed, A. Hassan, and S. Shafique, "Orange Dye Based Temperature Sensor," Proceedings of the Romanian Academy Series a-Mathematics Physics Technical Sciences Information Science, vol. 22, no. 2, pp. 173–178, 2021.
- [11] M. M. Ahmed, K. Karimov, and U. F. Ahmed, "An improved model to predict DC characteristics of organic field-effect transistors," *Journal of Computational Electronics*, vol. 20, p. 2342–2349, 2021.
- [12] M. A. Chaudhary and M. M. Ahmed, "Inline Waveguide Pseudo-Elliptic Filters Using Non-Resonating Modes With Folded-Waveguide Resonators," *IEEE Access*, vol. 9, pp. 140 841–140 852, 2021.
- [13] U. F. Ahmed, M. M. Ahmed et al., "A Unified Depletion/Inversion Model for Heterojunction Trigate FinFETs DC Characteristics," IEEE Access, vol. 9, pp. 89768–89777, 2021.
- [14] M. S. Khan, N. M. Khan, A. Khan, F. Aadil, M. Tahir, and M. Sardaraz, "A low-complexity, energy-efficient data securing model for wireless sensor network based on linearly complex voice encryption mechanism of GSM technology," *International Journal of Distributed Sensor Networks*, vol. 17, no. 5, p. 15501477211018623, 2021.
- [15] N. Hassan and N. M. Khan, "Cost-effective reliable transmission service for Internet of Flying Things," *International Journal of Distributed Sensor Networks*, vol. 17, no. 6, p. 15501477211017820, 2021.
- [16] S. J. Nawaz, S. K. Sharma, B. Mansoor, M. N. Patwary, and N. M. Khan, "Non-coherent and backscatter communications: Enabling ultra-massive connectivity in 6G wireless networks," *IEEE Access*, vol. 9, pp. 38144–38186, 2021.
- [17] H. Raza, G. Hussain, and N. KHAN, "Low communication parallel distributed signal processing (LC-PDASP) architecture for processing-inefficient platforms," *Turkish Journal of Electrical Engineering & Computer Sciences*, vol. 29, no. 2, pp. 663–672, 2021.
- [18] K. Shehzad, N. M. Khan, and J. Ahmed, "Performance analysis of coverage-centric heterogeneous cellular networks using dual-slope path loss model," *Computer Net-works*, vol. 185, p. 107672, 2021.
- [19] S. B. Javed, A. A. Uppal, R. Samar, and A. I. Bhatti, "Design and implementation of multi-variable H∞ robust control for the underground coal gasification project Thar," Energy, vol. 216, p. 119000, 2021.
- [20] M. Khattak, A. A. Uppal, Q. Khan, A. I. Bhatti, Y. M. Alsmadi, V. I. Utkin, and I. Chairez, "Neuro-adaptive sliding mode control for underground coal gasification energy conversion process," *International Journal of Control*, pp. 1–12, 2021.

- [21] M. S. Awan, M. Aslam, M. Liaquat, A. Bhatti, and A. Liaquat, "Effect of pharmacodynamical interaction between nutlin-3a and aspirin in the activation of p53," *Journal of Theoretical Biology*, vol. 522, p. 110696, 2021.
- [22] H. M. Y. Naeem, A. I. Bhatti, Y. A. Butt, and Q. Ahmed, "Eco-driving control of electric vehicle with battery dynamic model and multiple traffic signals," Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering, p. 09544070211037468, 2021.
- [23] S. B. Javed, V. I. Utkin, A. A. Uppal, R. Samar, and A. I. Bhatti, "Data-Driven Modeling and Design of Multivariable Dynamic Sliding Mode Control for the Underground Coal Gasification Project Thar," *IEEE Transactions on Control Systems* Technology, vol. 30, no. 1, pp. 153–165, 2021.
- [24] I. Khan, F. Waheed, Q. Khan, A. I. Bhatti, R. Ullah, and R. Akmeliawati, "A Linear Parameter Varying Strategy based Integral Sliding Mode Control Protocol Development and Its Implementation on Ball and Beam Balancer," *IEEE Access*, vol. 9, pp. 74 437–74 445, 2021.
- [25] R. Anjum, A. Yar, G. Murtaza, Q. Ahmed, and A. Bhatti, "Model Based Unified Framework for Detection and Mitigation of Cyclic Torque Imbalance in a Gasoline Engine," *Journal of Engineering for Gas Turbines and Power*, vol. 143, no. 7, p. 071013, 2021.
- [26] N. Siddique and F. U. Rehman, "Hybrid synchronization and parameter estimation of a complex chaotic network of permanent magnet synchronous motors using adaptive integral sliding mode control," *Bulletin of the Polish Academy of Sciences: Technical Sciences*, vol. 69, no. 3, pp. e137056–e137056, 2021.
- [27] F. U. Rehman, N. Mehmood, S. U. Din, M. R. Mufti, and H. Afzal, "Adaptive Sliding Mode Based Stabilization Control for the Class of Underactuated Mechanical Systems," *IEEE Access*, vol. 9, pp. 26607–26615, 2021.
- [28] F. ur Rehman, I. Shah, and W. Abbasi, "Smooth Second Order Sliding Mode Stabilization of Underactuated Two-Link Manipulators: The Acrobot and Pendubot Examples," 2021.
- [29] M. Ghafoor, S. A. Tariq, T. Zia, I. A. Taj, A. Abbas, A. Hassan, and A. Y. Zomaya, "Fingerprint Identification With Shallow Multifeature View Classifier," *IEEE transactions on cybernetics*, vol. 51, no. 9, pp. 4515–4527, 2021.
- [30] I. A. Taj, M. Sajid, K. S. Karimov et al., "An ensemble framework based on Deep CNNs architecture for glaucoma classification using fundus photography," Mathematical Biosciences and Engineering, vol. 18, no. 5, pp. 5321–5346, 2021.
- [31] I. Ahmad, H. Sun, U. Rafique, and Z. Yi, "Triangular Slot-Loaded Wideband Planar Rectangular Antenna Array for Millimeter-Wave 5G Applications," *Electronics*, vol. 10, no. 7, p. 778, 2021.

- [32] M. S. Iqbal, Y. A. K. Niazi, U. A. Khan, and B.-W. Lee, "Real-time fault detection system for large scale grid integrated solar photovoltaic power plants," *International Journal of Electrical Power & Energy Systems*, vol. 130, p. 106902, 2021.
- [33] Janjua, Shahmir and Hassan, Ishtiaq and Ali, Muhammad Umair and Ibrahim, Malik Muhammad and Zafar, Amad and Kim, Sangil, "Addressing social inequality and improper water distribution in cities: A case study of karachi, pakistan," *Land*, vol. 10, no. 11, 2021.
- [34] M. Hassan and I. Hassan, "Improving Artificial Neural Network Based Streamflow Forecasting Models through Data Preprocessing," KSCE Journal of Civil Engineering, vol. 25, p. 3583–3595, 2021.
- [35] I. Parvez, J. Shen, I. Hassan, and N. Zhang, "Generation of Hydro Energy by Using Data Mining Algorithm for Cascaded Hydropower Plant," *Energies*, vol. 14, no. 2, p. 298, 2021.
- [36] H. U. Din, I. Waris, O. B. Rizwan, and M. Ali, "Energy Dissipation in 3D Structure having Multiple Uplifts During Dynamic Loading," Arabian Journal for Science and Engineering, vol. 46, no. 5, pp. 4503–4520, 2021.
- [37] M. Khan, M. Cao, C. Xie, and M. Ali, "Hybrid fiber concrete with different basalt fiber length and content," *Structural Concrete*, 2021.
- [38] M. Khan, M. Cao, C. Xie, and M. Ali, "Efficiency of basalt fiber length and content on mechanical and microstructural properties of hybrid fiber concrete," Fatigue & Fracture of Engineering Materials & Structures, vol. 44, no. 8, pp. 2135–2152, 2021.
- [39] A. Waheed, M. U. Arshid, R. A. Khalid, and S. S. S. Gardezi, "Soil Improvement Using Waste Marble Dust for Sustainable Development," *Civil Engineering Journal*, vol. 7, no. 9, pp. 1594–1607, 2021.
- [40] D. Shuja, S. S. S. Gardezi, and M. R. Idrees, "Prospects of Transforming Conventional Commercial Buildings to Net Zero Energy Building-Balancing the Economic Aspects with Energy Patterns," Scientific Journal of Riga Technical University. Environmental and Climate Technologies, vol. 25, no. 1, pp. 990-1002, 2021.
- [41] S. S. S. Gardezi, N. Shafiq, I. Hassan, and M. U. Arshid, "Life Cycle Carbon Footprint Assessments, Case Study of Malaysian Housing Sector," Scientific Journal of Riga Technical University. Environmental and Climate Technologies, vol. 25, no. 1, pp. 1003–1017, 2021.
- [42] I. Hasan, S. S. S. Gardez, and U. Hussain, "BIM-Based Energy Optimization—Case study of High-Rise Building in Pakistan," *Journal of Sustainability Perspectives*, vol. 1, no. 1, 2021.
- [43] B. Manzoor, I. Othman, S. S. S. Gardezi, and E. Harirchian, "Strategies for Adopting Building Information Modeling (BIM) in Sustainable Building Projects—A Case of Malaysia," *Buildings*, vol. 11, no. 6, p. 249, 2021.

- [44] B. Manzoor, I. Othman, S. S. S. Gardezi, H. Altan, and S. B. Abdalla, "BIM-Based Research Framework for Sustainable Building Projects: A Strategy for Mitigating BIM Implementation Barriers," Applied Sciences, vol. 11, no. 12, p. 5397, 2021.
- [45] S. S. S. Gardezi, N. Shafiq, and M. W. A. Khan, "Relational pre-impact assessment of conventional housing features and carbon footprint for achieving sustainable built environment," *Environment, Development and Sustainability*, pp. 1–23, 2021.
- [46] Hasan, Irbaz and Gardezi, Syed Shujaa Safdar and Hussain, Usman, "Bim-enabled energy analysis for sustainability: A case study of high rise building," *Environmental* and Toxicology Studies Journal, vol. 4, no. 2, 2021.
- [47] Janjua, Shahmir and Hassan, Ishtiaq and Muhammad, Shoaib and Ahmed, Saira, "Water management in pakistan's indus basin: challenges and opportunities," Water Policy, vol. 23, no. 6, pp. 1329–1343, 2021.
- [48] H. F. Ahmed, F. K. Malik, and M. M. Khan, "Influence of passive wake control on thermal-hydraulic performance of a cylinder confined in wavy channel under high blockage ratios," *Thermophysics and Aeromechanics*, 2021.
- [49] L. A. Khan and M. M. Khan, "Influence of angular orientation of fins on thermal charging and discharging performance of latent heat storage unit," *High Temperature*, 2021.
- [50] Hussain, Liaqat and Khan, Muhammad Mahabat and Masud, Manzar and Ahmed, Fawad and Rehman, Zabdur and Amanowicz, Lukasz and Rajski, Krzysztof, "Heat transfer augmentation through different jet impingement techniques: A state-of-theart review," Energies, vol. 14, no. 20, 2021.
- [51] Lehar Asip Khan and Muhammad Mahabat Khan and Hassan Farooq Ahmed and Muhammad Irfan and Dermot Brabazon and Inam Ul Ahad, "Dominant roles of eccentricity, fin design, and nanoparticles in performance enhancement of latent thermal energy storage unit," *Journal of Energy Storage*, vol. 43, p. 103181, 2021.
- [52] M. S. Shafiq, M. M. Khan, and M. Irfan, "Performance enhancement of double-wall-heated rectangular latent thermal energy storage unit through effective design of fins," Case Studies in Thermal Engineering, vol. 27, p. 101339, 2021.
- [53] R. Qaiser, M. M. Khan, L. A. Khan, and M. Irfan, "Melting performance enhancement of PCM based thermal energy storage system using multiple tubes and modified shell designs," *Journal of Energy Storage*, vol. 33, p. 102161, 2021.
- [54] L. Hussain and M. Khan, "Passive Control of Vortex Shedding and Drag Reduction in Laminar Flow across Circular Cylinder Using Wavy Wall Channel," *Fluid Dynamics*, vol. 56, no. 2, pp. 262–277, 2021.
- [55] N. N. Malik and M. J. Hyder, "Study of Factors Influencing the Thrust Response of Convergent Nozzle Block," *Journal of the Chinese Society of Mechanical Engineers*, vol. 42, no. 1, pp. 121–130, 2021.

- [56] Y. Zulfiqar, M. J. Hyder, A. Jehanzeb, H. W. Ahmad, A. Zulfiqar, and U. M. Chaudry, "Structural Assessment of a Cylindrical Liquid Tank due to Shape Change of Roof during Sloshing Induced by Seismic Activity," *Arabian Journal for Science and En*gineering, vol. 46, p. 8075–8085, 2021.
- [57] A. J. Joya, M. J. Hyder, and Y. Zulfiqar, "Nonlinear response of acid storage tank coupled with piping attachment under seismic load for optimal safe design," *Latin* American Journal of Solids and Structures, vol. 18, no. 1, 2021.
- [58] F. ul Hasnain, M. Irfan, M. M. Khan, L. A. Khan, and H. F. Ahmed, "Melting performance enhancement of a phase change material using branched fins and nanoparticles for energy storage applications," *Journal of Energy Storage*, vol. 38, p. 102513, 2021.
- [59] T. Zahid, M. H. Agha, S. S. Warsi, and U. Ghafoor, "Redefining Critical Tasks for Responsive and Resilient Scheduling-an Intelligent Fuzzy Heuristic Approach," *IEEE Access*, vol. 9, pp. 145513–145521, 2021.
- [60] R. A. Liaqait, S. S. Warsi, T. Zahid, U. Ghafoor, M. S. Ahmad, and J. Selvaraj, "A Decision Framework for Solar PV Panels Supply Chain in Context of Sustainable Supplier Selection and Order Allocation," *Sustainability*, vol. 13, no. 23, p. 13216, 2021.
- [61] S. S. Warsi, T. Zahid, H. Elahi, R. A. Liaqait, S. Bibi, F. Gillani, and U. Ghafoor, "Sustainability-Based Analysis of Conventional to High-Speed Machining of Al 6061-T6 Alloy," *Applied Sciences*, vol. 11, no. 19, p. 9032, 2021.
- [62] R. Liaqait, S. Hamid, S. Warsi, and A. Khalid, "A Critical Analysis of Job Shop Scheduling in Context of Industry 4.0," Sustainability, vol. 13, p. 7684, 2021.
- [63] R. A. Liaqait, S. S. Warsi, M. H. Agha, T. Zahid, and T. Becker, "A multi-criteria decision framework for sustainable supplier selection and order allocation using multiobjective optimization and fuzzy approach," *Engineering Optimization*, pp. 1–22, 2021.
- [64] M. Khan, A. Khalid, W. A. Lughmani, and M. M. Khan, "A use case of exclusive economic zone of Pakistan for wave power potential estimation," *Ocean Engineering*, vol. 237, p. 109664, 2021.
- [65] S. Rasheed, W. A. Lughmani, M. A. Obeidi, D. Brabazon, and I. U. Ahad, "Additive Manufacturing of Bone Scaffolds Using PolyJet and Stereolithography Techniques," *Applied Sciences*, vol. 11, no. 1–6, p. 7336, 2021.
- [66] G. Xu, Z. Guan, L. Yue, J. Mumtaz, and J. Liang, "Modeling and Optimization for Multi-Objective Nonidentical Parallel Machining Line Scheduling with a Jumping Process Operation Constraint," Symmetry, vol. 13, no. 8, p. 1521, 2021.
- [67] L. Yue, Y. Chen, J. Mumtaz, and S. Ullah, "Dynamic Mixed Model Lotsizing and Scheduling for Flexible Machining Lines Using a Constructive Heuristic," *Processes*, vol. 9, no. 7, p. 1255, 2021.

- [68] L.-Y. Yuan, P.-W. Han, G. Asghar, B.-L. Liu, J.-P. Li, B. Hu, P.-H. Fu, and L.-M. Peng, "Development of High Strength and Toughness Non-Heated Al-Mg-Si Alloys for High-Pressure Die-Casting," Acta Metallurgica Sinica (English Letters), vol. 34, no. 6, pp. 845–860, 2021.
- [69] U. Zia, H. Aslam, W. Awan, M. Zulfiqar, and A. Awan, "Levelized Cost Based Economic Assessment of Waste-to-Energy Conversion Technologies in Pakistan," *Engineering Proceedings*, vol. 12, no. 1, p. 2, 2021.
- [70] M. Masud, M. S. Al Kharusi, M. U. Ali, A. Mubashar, S. J. Hussain, A. Tariq, G. U. Rehman, M. H. Akhtar, and S. Javeed, "Prediction of the Ultimate Strength of Notched and Unnotched IM7/977-3 Laminated Composites Using a Micromechanics Approach," *Polymers*, vol. 13, no. 20, p. 3491, 2021.
- [71] M. U. Ali, S. Saleem, H. Masood, K. D. Kallu, M. Masud, M. J. Alvi, and A. Zafar, "Early hotspot detection in photovoltaic modules using color image descriptors: An infrared thermography study," *International Journal of Energy Research*, 2021.
- [72] S. Tariq, A. Tariq, M. Masud, and Z. Rehman, "Minimizing the Casting Defects in High Pressure Die Casting Using Taguchi Analysis," *Scientia Iranica*, 2021.
- [73] H. Waqas and M. A. Qadir, "Multilayer heuristics based clustering framework (MHCF) for author name disambiguation," *Scientometrics*, vol. 126, no. 9, pp. 7637–7678, 2021.
- [74] I. Ihsan and M. A. Qadir, "An NLP-based citation reason analysis using CCRO," Scientometrics, vol. 126, no. 6, pp. 4769–4791, 2021.
- [75] S. R. Aziz, T. A. Khan, and A. Nadeem, "Inheritance metrics feats in unsupervised learning to classify unlabeled datasets and clusters in fault prediction," *PeerJ Computer Science*, vol. 7, p. e722, 2021.
- [76] R. Muhammad, A. Nadeem, and M. A. Sindhu, "Vovel metrics—novel coupling metrics for improved software fault prediction," *PeerJ Computer Science*, vol. 7, p. e590, 2021.
- [77] M. Rizwan, A. Nadeem, S. Sarwar, M. Iqbal, M. Safyan, and Z. Ul Qayyum, "EkmEx-An Extended Framework for Labeling an Unlabeled Fault Dataset," *Multimedia Tools and Applications*, 2021.
- [78] S. R. Aziz, T. A. Khan, and A. Nadeem, "Exclusive use and evaluation of inheritance metrics viability in software fault prediction—an experimental study," *PeerJ Computer Science*, vol. 7, p. e563, 2021.
- [79] M. Bano, A. Qayyum, R. N. B. Rais, and S. S. A. Gilani, "Soft-Mesh: A Robust Routing Architecture for Hybrid SDN and Wireless Mesh Networks," *IEEE Access*, vol. 9, pp. 87715–87730, 2021.

- [80] M. H. Bin Waheed, F. Jamil, A. Qayyum, H. Jamil, O. Cheikhrouhou, M. Ibrahim, B. Bhushan, and H. Hmam, "A New Efficient Architecture for Adaptive Bit-Rate Video Streaming," vol. 13, no. 8, p. 4541, 2021.
- [81] S. Irfan, N. Anjum, N. Masood, A. S. Khattak, and N. Ramzan, "A Novel Hybrid Deep Learning Model for Human Activity Recognition Based on Transitional Activities," Sensors, vol. 21, no. 24, p. 8227, 2021.
- [82] A. Lakhan, M. A. Dootio, F. Alqahtani, I. R. Alzahrani, F. Baothman, S. Y. Shah, S. A. Shah, N. Anjum, Q. H. Abbasi, M. S. Khokhar et al., "Hybrid workload enabled and secure healthcare monitoring sensing framework in distributed fog-cloud network," Electronics, vol. 10, no. 16, p. 1974, 2021.
- [83] U. Saeed, S. Y. Shah, A. Zahid, J. Ahmad, M. A. Imran, Q. H. Abbasi, and S. A. Shah, "Wireless Channel Modelling for Identifying Six Types of Respiratory Patterns with SDR Sensing and Deep Multilayer Perceptron," *IEEE Sensors Journal*, vol. 21, no. 18, pp. 20833–20840, 2021.
- [84] A. M. Qureshi, N. Anjum, R. N. B. Rais, M. Ur-Rehman, and A. Qayyum, "etection of malicious consumer interest packet with dynamic threshold values," *PeerJ Computer Science*, vol. 7, p. e435, 2021.
- [85] S. Alam, M. Shuaib, W. Z. Khan, S. Garg, G. Kaddoum, M. S. Hossain, and Y. B. Zikria, "Blockchain-based Initiatives: Current state and challenges," Computer Networks, vol. 198, p. 108395, 2021.
- [86] A. Tahir, N. Shah, S. A. Abid, W. Z. Khan, A. K. Bashir, and Y. B. Zikria, "A three-dimensional clustered peer-to-peer overlay protocol for mobile ad hoc networks," *Computers & Electrical Engineering*, vol. 94, p. 107364, 2021.
- [87] I. Shahzad, A. Maqbool, T. Rana, A. Mirza, W. Z. Khan, S. W. Kim, Y. B. Zikria, and S. Din, "Blockchain-based green big data visualization: BGbV," *Complex & Intelligent Systems*, pp. 1–12, 2021.
- [88] S. Tahir, M. M. Raja, N. Razzaq, A. Mirza, W. Z. Khan, S. W. Kim, and Y. B. Zikria, "Extended Kalman Filter-Based power line interference canceller for electrocardiogram signal," *Big Data*, 2021.
- [89] S. Ahmed, A. S. M. Noor, W. Z. Khan, and M. S. E. Mohamed, "Analysis of student attitude and their acceptance for e-Evaluation during (COVID-19): Implementation and Implications," 2021.
- [90] M. Kashif, A. Hussain, A. Munir, A. B. Siddiqui, A. Abbasi, M. Aakif, A. J. Malik, F. E. Alazemi, and O.-Y. Song, "A machine learning approach for expression detection in healthcare monitoring systems," *Computers, Materials & Continua*, vol. 67, no. 2, pp. 2123–2139, 2021.

- [91] R. Gulbaz, A. B. Siddiqui, N. Anjum, A. A. Alotaibi, T. Althobaiti, and N. Ramzan, "Balancer Genetic Algorithm—A Novel Task Scheduling Optimization Approach in Cloud Computing," *Applied Sciences*, vol. 11, no. 14, p. 6244, 2021.
- [92] F. S. Ujager, A. Mahmood, M. Usman, and M. S. Rathore, "A Hierarchical Energy Conservation Framework (HECF) of Wireless Sensor Networks by Temporal Association Rule Mining for Smart Buildings," *Egyptian Informatics Journal*, 2021.
- [93] Mir, Jibran and Azhar, Mahmood and Khatoon, Shaheen, "Multi-level knowledge engineering approach for mapping implicit aspects to explicit aspects," *Computers*, *Materials and Continua*, vol. 70, no. 2, pp. 3491–3509, 2021.
- [94] Y. Abbas and M. Malik, "Defective products identification framework using online reviews," *Electronic Commerce Research*, pp. 1–22, 2021.
- [95] A. Nawaz and M. Malik, "Rising stars prediction in reviewer network," *Electronic Commerce Research*, pp. 1–23, 2021.
- [96] M. Sulaiman, Z. Halim, M. Waqas, and D. Aydin, "A hybrid list-based task scheduling scheme for heterogeneous computing," The Journal of Supercomputing, vol. 77, pp. 1–37, 2021.
- [97] M. Sulaiman, Z. Halim, M. Lebbah, M. Waqas, and S. Tu, "An Evolutionary Computing-Based Efficient Hybrid Task Scheduling Approach for Heterogeneous Computing Environment," *Journal of Grid Computing*, vol. 19, no. 1, pp. 1–31, 2021.
- [98] F. Saleem, M. N. Majeed, J. Iqbal, A. Waheed, A. Rauf, M. Zareei, and E. M. Mohamed, "Ant Lion Optimizer Based Clustering Algorithm for Wireless Body Area Networks in Livestock Industry," *IEEE Access*, vol. 9, pp. 114495–114513, 2021.
- [99] M. Adnan, J. Iqbal, A. Waheed, N. Amin, M. Zareei, A. Umer, and E. Mohamed, "Towards the Design of Efficient and Secure Architecture for Software-Defined Vehicular Networks," Sensors, vol. 21, p. 3902, 2021.
- [100] J. Iqbal, A. I. Umar, A. N. Ul, A. Waheed, S. Abdullah, M. Zareei, and M. A. K. Khattak, "Efficient network selection using multi fuzzy criteria for confidential data transmission in wireless body sensor networks," *Journal of Intelligent & Fuzzy Systems*, vol. 41, no. 1, pp. 31–55, 2021.
- [101] M. Adnan, J. Iqbal, A. Waheed, N. U. Amin, M. Zareei, S. Goudarzi, and A. Umer, "On the Design of Efficient Hierarchic Architecture for Software Defined Vehicular Networks," Sensors, vol. 21, no. 4, p. 1400, 2021.
- [102] L. P. Shin et al., "Usability Study on Healthy Food Restaurant Finder," Turkish Journal of Computer and Mathematics Education (TURCOMAT), vol. 12, no. 3, pp. 1745–1753, 2021.
- [103] S. Qaiser et al., "A Comparison of Machine Learning Techniques for Sentiment Analysis," Turkish Journal of Computer and Mathematics Education (TURCOMAT), vol. 12, no. 3, pp. 1738–1744, 2021.

- [104] S. A. Raza, M. A. Qureshi, M. Ahmed, S. Qaiser, R. Ali, and F. Ahmed, "Non-linear relationship between tourism, economic growth, urbanization, and environmental degradation: evidence from smooth transition models," *Environmental Science and Pollution Research*, vol. 28, no. 2, pp. 1426–1442, 2021.
- [105] G. Mustafa, M. Usman, L. Yu, M. Sulaiman, A. Shahid *et al.*, "Multi-label classification of research articles using Word2Vec and identification of similarity threshold," *Scientific reports*, vol. 11, no. 1, pp. 1–20, 2021.
- [106] G. Mustafa, M. Usman, M. T. Afzal, A. Shahid, and A. Koubaa, "A Comprehensive Evaluation of Metadata-based Features to Classify Research Paper's Topics," *IEEE Access*, vol. 9, pp. 133 500–133 509, 2021.
- [107] S. Ibrahim, S. Nazir, and S. A. Velastin, "Feature Selection Using Correlation Analysis and Principal Component Analysis for Accurate Breast Cancer Diagnosis," *Journal* of *Imaging*, vol. 7, no. 11, p. 225, 2021.
- [108] S. Hayat, A. Rextin, and A. Bilal, "Understanding the usability issues in contact management of illiterate and semi-literate users," *Plos one*, vol. 16, no. 12, p. e0259719, 2021.
- [109] S. M. Muzammal, R. K. Murugesan, and N. Z. Jhanjhi, "A comprehensive review on secure routing in internet of things: Mitigation methods and trust-based approaches," *IEEE Internet of Things Journal*, vol. 8, no. 6, pp. 4186–4210, 2021.
- [110] S. M. Muzammal and R. K. Murugesan, "Enhanced Authentication and Access Control in Internet of Things: A Potential Blockchain-based Method," *International Journal of Grid and Utility Computing*, vol. 12, no. 5-6, p. 469, 2021.
- [111] M. Nawaz, Z. Mehmood, M. Bilal, A. M. Munshi, M. Rashid, R. M. Yousaf, A. Rehman, and T. Saba, "Single and multiple regions duplication detections in digital images with applications in image forensic," *Journal of Intelligent & Fuzzy Systems*, vol. 40, no. 6, pp. 10351–10371, 2021.
- [112] R. M. Yousaf, H. A. Habib, Z. Mehmood, and M. Bilal, "Image dehazing based on dark channel spatial stimuli gradient model and image morphology," *Journal of Ambient Intelligence and Humanized Computing*, vol. 12, no. 8, pp. 8483–8495, 2021.
- [113] S. Obaid, I. Arshad, and M. Usman Abid, "Characterizing Reverse Engineering Practices on Decayed Software Applications," International Journal Of Computing and Digital System, 2021.
- [114] J. Iqbal, S. Hussain, H. AlSalman, M. A. Mosleh, S. Sajid Ullah et al., "A Computational Intelligence Approach for Predicting Medical Insurance Cost," *Mathematical Problems in Engineering*, vol. 2021.
- [115] Q. Lin, A. Munir, S. Masood, S. Hussain, M. Naeem, and S. Fazal, "Gene expression profiling utilizing extremely sensitive CDNA arrays and enrichment-based network

- study of major bone cancer genes," Journal of research in medical sciences: the official journal of Isfahan University of Medical Sciences, vol. 26, no. 49, p. 34484381, 2021.
- [116] R. Malik and S. Fazal, "Insights into the Dynamic Fluctuations of the Protein HPV16 E1 and Identification of Motifs by Using Elastic Network Modeling," Protein and Peptide Letters, vol. 28, no. 9, pp. 1061–1070, 2021.
- [117] F. Humayun, F. Khan, N. Fawad, S. Shamas, S. Fazal, A. Khan, A. Ali, A. Farhan, and D. Wei, "Computational Method for Classification of Avian Influenza A Virus Using DNA Sequence Information and Physicochemical Properties," Frontiers in Genetics, vol. 12, p. 10, 2021.
- [118] s. Hussain, A. Fatima, X. X. Fan, and S. I. Malik, "The biological importance of cells secreted exosomes," *Pakistan Journal of Pharmaceutical Sciences*, vol. 34, no. 6, pp. 2273–2279, 2021.
- [119] H. Mehdi, S. Malik, H. Ali, and Z. Rasool, "Impacto de la amenaza financiera en el cambio de comportamiento del inversor: el efecto moderador del apoyo social durante la Covid19 en Pakistan," *Apuntes del Cenes*, vol. 40, no. 72, pp. 47–70, 2021.
- [120] S. Qiu, A. Munir, S. Malik, S. Khan, and A. Hassan, "Identification of differentially expressed genes and pathways crosstalk analysis in Rheumatoid and Osteoarthritis using next-generation sequencing and protein-protein networks," Saudi Journal of Biological Sciences, vol. 120, no. 3, pp. 4533–4544, 2021.
- [121] S. Hussain, S. Bokhari, X. Fan, and S. Malik, "The role of exosomes derived miRNA in cancer," *Journal of the Pakistan Medical Association*, pp. 1–16, 2021.
- [122] M. T. Khan, S. Ali, A. S. Khan, N. Muhammad, F. Khalil, M. Ishfaq, M. Irfan, A. G. Al-Sehemi, S. Muhammad, A. Malik et al., "SARS-CoV-2 Genome from the Khyber Pakhtunkhwa Province of Pakistan," ACS omega, vol. 6, no. 10, pp. 6588–6599, 2021.
- [123] S. Qiu, A. Munir, S. I. Malik, S. Khan, and A. Hassan, "Identification of Differentially Expressed Genes and Pathways Crosstalk Analysis in Rheumatoid Arthritis Using Next-generation Sequencing and Protein-Protein Networks," Saudi Journal of Biological Sciences, vol. 28, no. 8, pp. 4656–4663, 2021.
- [124] S. Arif, H. Saqib, M. Mubashir, S. I. Malik, A. Mukhtar, S. Saqib, S. Ullah, and P. L. Show, "Comparison of Nigella Sative and Trachyspermum Ammi via Experimental Investigation and Biotechnological Potential," *Chemical Engineering and Processing-Process Intensification*, p. 108313, 2021.
- [125] I. Riasat, S. M. Bakhtiar, M. Faheem, A. K. Jaiswal, M. Naeem, R. Khan, A. U. Khan, A. A. K. Khalil, A. Haider, M. Junaid et al., "Application of pan genomics towards the druggability of Clostridium botulinum," Applied Nanoscience, pp. 1–13, 2021.

- [126] S. M. Bakhtiar, S. E. Z. Bokhari, I. Riasat, and E. Dilshad, "Elucidating the Genetic Factors Contributing Towards Susceptibility and Severity of Covid 19," Current Chinese Science, vol. 1, no. 6, pp. 595–607, 2021.
- [127] N. A. Qureshi, S. M. Bakhtiar, M. Faheem, M. Shah, A. Bari, H. M. Mahmood, M. Sohaib, R. A. Mothana, R. Ullah, and S. B. Jamal, "Genome-Based Drug Target Identification in Human Pathogen Streptococcus gallolyticus," Frontiers in Genetics, vol. 12, p. 303, 2021.
- [128] A. Aftab and S. M. Bakhtiar, "Identification of Functional Variants Associated with Obesity in Pakistani Kindred," *Current Chinese Science*, vol. 01, no. 1, pp. 58–68, 2021.
- [129] H. Qayyum and S. M. Bakhtiar, "Pathogenomic Studies of Streptococcus sanguinis in Infective Endocarditis," 2021.
- [130] Z. U. H. I. Ali, G. H. Rizwani, U. Zafar, A. A. K. Khalil, Z. Farooq, E. Dilshad, A. Baseer, Z. Khan, and M. R. Saqibullah, "Antimicrobial activities of Dalbergia sissoo DC. and Caralluma tuberculate," *Bioscience Research*, vol. 18, no. 2, pp. 1802– 1809, 2021.
- [131] E. Dilshad, Z. Nooruddin, S. Shaukat, A. Munir, M. Bakhtiar, and H. Ismail, "Identification of Stress-induced miRNA and their targets in Solanum lycopersicum," Current Chinese Science, vol. 01, 2021.
- [132] H. Ismail, M. Ijaz, M. Bhatti, H. Liaquat, N. Nawaz, I. Zafar, M. Nassan, R. Waheed, R. Badr, S. Latif, M. S. Malik, E. Dilshad, M. Waheed, and G. Batiha, "Effect of Phoenix dactylifera extracts on anti-inflammatory, anticoagulant, analgesic and antidepressant activities," Wulfenia, vol. 28, no. 2, pp. 1–33, 2021.
- [133] I. Khan, A. Amin, F. Hussain, Y.-H. Liu, B. Fang, I. Ahmed, and W.-J. Li, "Noviherbaspirillum aridicola sp. nov., isolated from an arid soil in Pakistan," *International Journal of Systematic and Evolutionary Microbiology*, 2021.
- [134] A. Amin, I. Ahmed, N. Khalid, P. Schumann, H.-J. Busse, I. U. Khan, A. Ali, S. Li, and W.-J. Li, "Zafaria cholistanensis gen. nov. sp. nov., a moderately thermotolerant and halotolerant actinobacterium isolated from Cholistan desert soil of Pakistan," Archives of Microbiology, vol. 203, no. 4, pp. 1717–1729, 2021.
- [135] Z. Afsheen, M. Riaz, and M. Khan, "Current Epidemiological status of Cutaneous Leishmaniasis in different villages of District Malakand KP Province, Pakistan: A Perspective Study," Fresenius Environmental Bulletin, vol. 30, no. 9, pp. 10790– 10796, 2021.
- [136] M. Khan, F. Khalid, I. Ulhaq, M. Abdullah, S. Khan, S. Ullah, M. Malik, Muhammad, Z. Nasar, M. Salman, and S. Jan, "Highly-sensitive and rapid detection of COVID-19 in wastewater: A comprehensive review based on graphene field effect transistor biosensor," *Bioscience Research*, vol. 18, pp. 01–09, 2021.

- [137] N. Habib, M. P. N. Rao, M. Xiao, S. A. Jan, and W.-J. Li, "Genome-based reclassification of Caldicellulosiruptor lactoaceticus and Caldicellulosiruptor kristjanssonii as later heterotypic synonyms of Caldicellulosiruptor acetigenus," *International Journal of Systematic and Evolutionary Microbiology*, vol. 71, no. 8, p. 004927, 2021.
- [138] A. Sardar, A. H. Shah, B. H. Shah, Z. k. Shinwari, S. A. Jan, U. khan, and M. A. Nawaz, "Molecular analyses of selected Tea Genotypes irradiated with Gamma Rays," Pak. J. Bot, vol. 53, p. 5, 2021.
- [139] M. Khan, M. Salman, S. Jan *et al.*, "Biological control of fungal phytopathogens: A comprehensive review based on Bacillus species," *MOJ Biol Med*, vol. 6, no. 2, pp. 90–92, 2021.
- [140] I. Khan, S. Khan, Y. Zhang, J. Zhou, M. Akhoundian, and S. A. Jan, "CRISPR-Cas technology based genome editing for modification of salinity stress tolerance responses in rice (Oryza sativa L.)," *Molecular Biology Reports*, vol. 48, no. 4, pp. 3605–3615, 2021.
- [141] S. A. Jan, N. Habib, Z. K. Shinwari, M. Ali, and N. Ali, "The anti-diabetic activities of natural sweetener plant Stevia: an updated review," *SN Applied Sciences*, vol. 3, no. 4, pp. 1–6, 2021.
- [142] U. Ahmad, A. Sami, M. Karamat, M. Khalid, M. Naeem, and M. Yousaf, "Synthesis and Characterization of Various Porous Hydrogels for In-Vitro and InVivo Drug (Insulin) Delivery," *Biologia (Lahore, Pakistan)*, vol. 67, pp. 1–13, 2021.
- [143] F. Shahzad, M. Sagheer, and S. Hussain, "Transport of MHD nanofluid in a stratified medium containing gyrotactic microorganisms due to a stretching sheet," *Scientia Iranica*, vol. 28, no. 6, pp. 3786–3805, 2021.
- [144] I. Rashid, M. Sagheer, and S. Hussain, "Magnetohdrodnamics nanofluid flow of shaped nanoparticles over a porous stretching wall and slip effect," *Numerical Methods for Partial Differential Equations*, 2021.
- [145] T. Nawaz, M. Afzal, and A. Wahab, "Scattering analysis of a flexible trifurcated lined waveguide structure with step-discontinuities," *Physica Scripta*, vol. 96, no. 11, p. 115004, 2021.
- [146] H. Bilal and M. Afzal, "On the extension of the mode-matching procedure for modeling a wave-bearing cavity," *Mathematics and Mechanics of Solids*, vol. 27, no. 2, pp. 348–367, 2021.
- [147] M. Afzal, S. Shafique, and A. Wahab, "Analysis of Traveling Waveform of Flexible Waveguides Containing Absorbent Material along Flanged Junctions," Communications in Nonlinear Science and Numerical Simulation, vol. 97, p. 105737, 2021.
- [148] M. Afzal and J. U. Satti, "The traveling wave formulation of a splitting chamber containing reactive components," Archive of Applied Mechanics, vol. 91, no. 5, pp. 1959–1980, 2021.

- [149] M. Afzal, T. Nawaz, and R. Nawaz, "Scattering characteristics of planar trifurcated waveguide structure containing multiple discontinuities," Waves in Random and Complex Media, pp. 1–20, 2021.
- [150] S. Shah and S. Hussain, "Slip effect on mixed convective flow and heat transfer of magnetized UCM fluid through a porous medium in consequence of novel heat flux model," *Results in Physics*, vol. 20, p. 103749, 2021.
- [151] M. Jamal and S. Hussain, "Mixed Convection in Square Enclosure by Considering the Thermal Effect on Cylinder," *Journal of Thermophysics and Heat Transfer*, vol. 35, no. 4, pp. 1–14, 2021.
- [152] M. A. R. Siddique, A. R. Kahsif, M. Shoaib, and S. Hussain, "Stability Analysis of the Rhomboidal Restricted Six-Body Problem," *Advances in Astronomy*, vol. 2021, p. 5575826, 2021.
- [153] M. A. Qureshi, S. Hussain, and M. A. Sadiq, "Numerical simulations of MHD mixed convection of hybrid nanofluid flow in a horizontal channel with cavity: Impact on heat transfer and hydrodynamic forces," Case Studies in Thermal Engineering, p. 101321, 2021.
- [154] S. Hussain and H. F. Öztop, "Impact of inclined magnetic field and power law fluid on double diffusive mixed convection in lid-driven curvilinear cavity," *International Communications in Heat and Mass Transfer*, vol. 127, p. 105549, 2021.
- [155] Hussain, Shafqat and Jamal, Muhammad and Maatki, Chemseddine and Ghachem, Kaouther and Kolsi, Lioua, "MHD mixed convection of Al2O3–Cu–water hybrid nanofluid in a wavy channel with incorporated fixed cylinder," *Journal of Thermal Analysis and Calorimetry*, vol. 144, pp. 2219–2223, 2021.
- [156] S. Hussain, S. Shoeibi, and T. Armaghani, "Impact of magnetic field and entropy generation of Casson fluid on double diffusive natural convection in staggered cavity," *International Communications in Heat and Mass Transfer*, vol. 127, p. 105520, 2021.
- [157] Hussain, Shafqat and Jamal, Muhammad and Geridonmez, Bengisen, "Impact of fins and inclined magnetic field in double lid-driven cavity with Cu–water nanofluid," *International Journal of Thermal Sciences*, vol. 161, p. 106707, 2021.
- [158] S. Hussain, M. Jamal, and B. Geridonmez, "Impact of power law fluid and magnetic field on double diffusive mixed convection in staggered porous cavity considering Dufour and Soret effects," *International Communications in Heat and Mass Transfer*, vol. 121, p. 105075, 2021.
- [159] S. Inam, S. Kanwal, and R. Ali, "A New Encryption Scheme Based on Groupring," Contemporary Mathematics, vol. 2, no. 2, pp. 103–112, 2021.
- [160] M. S. Ashraf, R. Ali, and N. Hussain, "Geraghty Type Contractions in Fuzzy b-metric Spaces with Application to Integral Equations," Filomat, vol. 34, no. 9, pp. 3083–3098, 2021.

- [161] M. Aslam, H. Aydi, S. Batul, and A. Naz, "Coincidence Point Results on Relation Theoretic Fw, Rg-Contractions and Applications," *Journal of Function Spaces*, vol. 2021, p. 9937318, 2021.
- [162] H. Aydi, M. Aslam, D.-e.-S. Sagheer, S. Batul, R. Ali, and E. Ameer, "Kannan-Type Contractions on New Extended-Metric Spaces," *Journal of Function Spaces*, vol. 2021, p. 7613684, 2021.
- [163] S. Atif, A. Kamran, and S. Shah, "MHD micropolar nanofluid with non Fourier and non Fick's law," *International Communications in Heat and Mass Transfer*, vol. 122, p. 105114, 2021.
- [164] H. Zada, A. Hassan, and W.-K. Wong, "Do Jumps Matter in Both Equity Market Returns and Integrated Volatility: A Comparison of Asian Developed and Emerging Markets," *Economies*, vol. 9, no. 2, p. 92, 2021.
- [165] Z. Ghafoor, I. Ahmed, and A. Hassan, "Audit committee characteristics, enterprise risk management and stock price synchronicity," *Managerial Auditing Journal*, vol. 37, no. 1, pp. 69–101, 2021.
- [166] M. H. Khan, A. Fraz, A. Hassan, and S. Z. H. Kazmi, "Impact of corruption on bank soundness: the moderating impact of Shari'ah supervision," *Journal of Financial Crime*, 2021.
- [167] S. Shabbir, S. Waqar, F. Ahmed, and S. Ahmed, "Policy Reforms in Public Institutions to Regulate SEZ under CPEC: A Learning Example from Africa," *Studies of Applied Economics*, vol. 39, no. 8, 2021.
- [168] R. Muhammad, S. Ahmed, and I. M, "Impact of Safety Climate on Project Success," Journal of Construction in Developing Countries, vol. 26, no. 2, 2021.
- [169] S. Ahmed, I. Nawaz, H. Arshad, A. Malik, H. Ali, and Z. Khalid, "Telecom Sector & Disaster Management -A Study of Pakistan's Cellular Networks during COVID-19," 2021.
- [170] S. Waqar, I. Badshah, F. Ahmad, and S. Ahmed, "The Impact of Special Economic Zones (SEZs) on Economic Growth: Where the Absorption Capacity of Domestic Labor Stands?" ETIKONOMI, vol. 20, pp. 259–274, 2021.
- [171] M. Rafique, S. Ahmed, and M. Ismail, "Impact of Safety Climate on Safety Behavior in Construction Projects. Mediating Mechanism and Interacting Effect," Journal of Construction in Developing Countries, vol. 26, no. 2, pp. 163–181, 2021.
- [172] S. Waqar, S. Ahmed, and I. Badshah, "Chinese FDI for Infrastructure Development in Africa-Assessing the Impact of Cooperation," Studies of Applied Economics, vol. 39, no. 2, 2021.

- [173] D. Fatima, M. B. Abdul Ghaffar, R. Zakariya, L. Muhammad, and A. Sarwar, "Work-place bullying, knowledge hiding and time theft: Evidence from the health care institutions in Pakistan," *Journal of Nursing Management*, vol. 29, no. 4, pp. 813–821, 2021.
- [174] L. Muhammad and A. Sarwar, "When and why organizational dehumanization leads to deviant work behaviors in hospitality industry," *International Journal of Hospitality Management*, vol. 99, p. 103044, 2021.
- [175] A. Sarwar, L. Muhammad, and M. Sigala, "Unraveling the complex nexus of punitive supervision and deviant work behaviors: findings and implications from hospitality employees in Pakistan," *International Journal of Contemporary Hospitality Manage*ment, vol. 33, no. 5, pp. 1437–1460, 2021.
- [176] A. Sarwar, J. Khan, L. Muhammad, N. Mubarak, and M. Jaafar, "Relationship between Organizational Dehumanization and Nurses' Deviant Behaviors: A Moderated Mediation Model," *Journal of Nursing Management*, vol. 29, no. 5, pp. 1036–1045, 2021.
- [177] N. Mubarak, J. Khan, R. Yasmin, and A. Osmadi, "The impact of a proactive personality on innovative work behavior: the role of work engagement and transformational leadership," *Leadership & Organization Development Journal*, vol. 42, no. 7, pp. 989–1003, 2021.
- [178] N. Mubarak, S. Safdar, S. Faiz, J. Khan, and M. Jaafar, "Impact of public health education on undue fear of COVID-19 among nurses: The mediating role of psychological capital," *International journal of mental health nursing*, vol. 30, no. 2, pp. 544–552, 2021.
- [179] A. Mir, M. Rafique, and N. Mubarak, "Impact of Inclusive Leadership on Project Success: Testing of a Model in Information Technology Projects," International Journal of Information Technology Project Management (IJITPM), vol. 12, no. 1, pp. 63–79, 2021.
- [180] U. Farooq, J. Ahmed, M. I. Tabash, S. Anagreh, and B. H. Subhani, "Nexus between government green environmental concerns and corporate real investment: Empirical evidence from selected Asian economies," *Journal of Cleaner Production*, vol. 314, p. 128089, 2021.
- [181] U. Farooq, J. Ahmed, K. Ashfaq, and M. I. Tabash, "Trade Credit as a Determinant of Firm's Financial Performance: Moderating Role of Bank Financing," *Global Business Review*, p. 09721509211036860, 2021.
- [182] J. Ahmed, S. ur Rehman, Z. Zuhaira, and S. Nisar, "The nexus between financial development and energy consumption: Estimating the role of foreign direct investment, economic growth and urbanization," *Energy & Environment*, p. 0958305X211045375, 2021.

- [183] M. Sheraz, X. Deyi, J. Ahmed, S. Ullah, and A. Ullah, "Moderating the effect of globalization on financial development, energy consumption, human capital, and carbon emissions: evidence from G20 countries," *Environmental Science and Pollution Research*, vol. 28, no. 26, pp. 35126–35144, 2021.
- [184] J. Ahmed, M. T. Khan, B. Hameed *et al.*, "Hematological profile in patients with chronic kidney disease in Pakistan: a cross-sectional research study," *Journal of The Egyptian Society of Nephrology and Transplantation*, vol. 21, no. 1, p. 57, 2021.
- [185] M. I. Khan, S. Khalid, U. Zaman, A. E. José, and P. Ferreira, "Green Paradox in Emerging Tourism Supply Chains: Achieving Green Consumption Behavior through Strategic Green Marketing Orientation, Brand Social Responsibility, and Green Image," International Journal of Environmental Research and Public Health, vol. 18, no. 18, 2021.
- [186] J. Khurshid, N. Khurshid, and M. I. Khan, "Impact of Social Identity on Women Entrepreneurial Intention/Behavior: Mediating Role of Attitude Towards Behavior and Moderating Role of Personal Network," *Ilkogretim Online*, vol. 43, no. 2, pp. 449–465, 2021.
- [187] B. Simonetti, "Impact of financial deepening on exchange rate: spillover evidence from developed and developing economies," *Electronic Journal of Applied Statistical Analysis*, vol. 14, no. 2, pp. 425–438, 2021.
- [188] S. H. Zaidi and N. T. Bhutta, "Liquidity Synchronization and Asset Valuation in Selected Emerging Asian Economies," Asian Economic and Financial Review, vol. 11, no. 6, pp. 488–500, 2021.
- [189] U. Rubbab, S. Faiz, S. Safdar, and N. Mubarak, "Impact of Thriving at Work on Eustress and Distress: Career Growth as Mediator," *European Journal of Training and Development*, 2021.
- [190] M. Khan and S. Zeb, "Academic Conversation: A Case to Exemplify the Influence of Non-Verbal Communication on Human Interaction," NUST Journal of Social Sciences and Humanities, vol. 7, pp. 79–98, 2021.
- [191] A. A. Qureshi and N. S. M. R, "Employee Reticence: Development and Validation of its Scale," *Humanities & Social Sciences Reviews*, vol. 9, no. 2, pp. 2395–6518, 2021.
- [192] M. U. A. Baig and S. M. M. R. Naqvi, "Why trainees evaluate the same trainer differently? Examining a dual-process model of training effectiveness," *European Journal of Training and Development*, 2021.
- [193] S. Attiq, A. A. Rajput, and M. U. Hannan, "The Deeper the Well the Colder the Water: The Role of Brand Coolness and Love in the Formation of Consumer's Engagement with the Lens of S-O-R Approach," *International Journal of Innovation, Creativity & Change*, vol. 15, no. 5, pp. 1174–1201, 2021.

- [194] S. Safdar, S. Faiz, and N. Mubarak, "A "Two-Edged Sword": Paternalistic Leadership and Nurses Performance: A Moderated Mediation Model," Frontiers in Psychology, vol. 12, pp. 775 786–775 786, 2021.
- [195] N. Mubarak, J. Khan, S. Safdar, S. Muhammad, and A. Riaz, "Ethical leadership in project-based organizations of Pakistan: the role of psychological empowerment and Islamic work ethics," *Management Research Review*, 2021.
- [196] S. Zaman, K. Arouj, S. Irfan, and I. Yousaf, "Maladaptive schema modes as the predictor of post-traumatic stress disorder among trauma survivors," *JPMA: Journal of the Pakistan Medical Association*, vol. 71, no. 7, pp. 1789–1792, 2021.
- [197] M. Aqeel, J. Abbas, K. H. Shuja, T. Rehna, A. Ziapour, I. Yousaf, and T. Karamat, "The influence of illness perception, anxiety and depression disorders on students mental health during COVID-19 outbreak in Pakistan: a web-based cross-sectional survey," *International Journal of Human Rights in Healthcare*, 2021.
- [198] B. Naeem, M. Aqeel, A. Maqsood, I. Yousaf, and S. Ehsan, "Psychometric properties of the revised Urdu version dyadic adjustment scale for evaluating marital relationship quality between madrassa and Non-Madrassa married women," *International Journal of Human Rights in Healthcare*, 2021.
- [199] M. M. Bhatti, K. H. Shuja, M. Aqeel, Z. Bokhari, S. N. Gulzar, T. Fatima, and M. Sama, "Psychometric development and validation of victim gaslighting questionnaire (VGQ): across female sample from Pakistan," *International Journal of Human* Rights in Healthcare, 2021.
- [200] K. H. Shuja, "A complex model of differences on gender and institution type in academic achievement, happiness and self-esteem among orphan and nonorphan children from Pakistan," *Current Psychology*, pp. 1–15, 2021.
- [201] K. Munawar, M. Aqeel, T. Rehna, K. H. Shuja, F. S. Bakrin, and F. R. Choudhry, "Validity and Reliability of the Urdu Version of the McLean Screening Instrument for Borderline Personality Disorder," Frontiers in Psychology, vol. 12, p. 533526, 2021.
- [202] F. Naz, K. H. Shuja, M. Aqeel, S. Ehsan, A. Noor, D. Butt, H. Gul, U. Rafaqat, A. Khan, and S. Gulzamir, "A hindrance to proper health care: psychometric development and validation of opiophobia questionnaire among doctors in Pakistan," *International Journal of Human Rights in Healthcare*, 2021.
- [203] Z. Ahmed, M. Ahmad, M. Murshed, A. I. Vaseer, and D. Kirikkaleli, "The trade-off between energy consumption, economic growth, militarization, and CO2 emissions: does the treadmill of destruction exist in the modern world?" *Environmental Science and Pollution Research*, pp. 1–14, 2021.
- [204] S. Qureshi, G. Ali, M. Idrees, T. Muhammad, I.-K. Kong, M. Abbas, M. I. A. Shah, S. Ahmad, R. D. Sewell, and S. Ullah, "Selected Thiadiazine-Thione Derivatives Attenuate Neuroinflammation in Chronic Constriction Injury Induced Neuropathy," Frontiers in Molecular Neuroscience, vol. 14, p. 728128, 2021.

- [205] M. T. Khan, H. Nadeem, A. S. Sheikh, N. S. Malik, M. Rizwan, M. Imran, I. Javed, M. U. Munir, A.-u. Khan, A. Syed et al., "Amino acid derivatives of 2-Mercaptobenzimidazoles suppress cytokines at the site of inflammation and block gastric H/K ATPase," Pak. J. Pharm. Sci., vol. 34, no. 3, pp. 1157–1163, 2021.
- [206] Z. Malik, M. Abbas, L. T. Al Kury, F. A. Shah, M. Alam, A.-u. Khan, H. Nadeem, S. Alghamdi, M. U. K. Sahibzada, and S. Li, "Thiazolidine Derivatives Attenuate Carrageenan-Induced Inflammatory Pain in Mice," *Drug design, development and therapy*, vol. 15, p. 369, 2021.
- [207] S. Akhtar, M. Abbas, K. Naeem, M. Faheem, H. Nadeem, and A. Mehmood, "Benzimidazole Derivative Ameliorates Opioid-Mediated Tolerance during Anticancer-Induced Neuropathic Pain in Mice," Anti-Cancer Agents in Medicinal Chemistry (Formerly Current Medicinal Chemistry-Anti-Cancer Agents), vol. 21, no. 3, pp. 365–371, 2021.
- [208] S. Bashir and A. Syed, "Effective Pharmacist led interventional strategies to improves outcomes in hypertensive patients: a narrative review," *Global Journal of Medical Therapeutics*, vol. 3, no. 2, 2021.
- [209] M. Abbas, A. Inam, E. Tahira, H. Qamar, J. Shakil, and S. Bashir, "Prescribing practices at a secondary healthcare setting of Islamabad, Pakistan: a descriptive cross-sectional study," *Journal of Pharmaceutical Health Services Research*, vol. 12, no. 2, pp. 152–158, 2021.
- [210] A. Khan, S. Bashir, and S. R. Khan, "Antiurolithic effects of medicinal plants: results of in vivo studies in rat models of calcium oxalate nephrolithiasis—a systematic review," *Urolithiasis*, vol. 49, pp. 95–122, 2021.
- [211] S. Bashir and I. Hamid, "Pharmacy students' perception of learning and engagement in a flipped-classroom of a physiology course," *Innovations in Education and Teaching International*, pp. 1–9, 2021.
- [212] M. Sakhi, A. Khan, I. Khan, Z. Iqbal, S. I. Khan, M. A. Khattak, F. Ullah, A. Aman, and M. Alam, "A new sensitive HPLC/UV method for simultaneous determination of paclitaxel, sorafenib and omeprazole in standard solutions and spiked plasma: Application to in-vitro and in-vivo evaluation of paclitaxel polymeric nanoformulations," Tropical Journal of Pharmaceutical Research, vol. 20, no. 9, pp. 1949–1959, 2021.
- [213] I. Ilahi, F. Khuda, M. U. K. Sahibzada, S. Alghamdi, R. Ullah, A. S. Dablool, M. Alam, A. Khan, A. A. K. Khalil et al., "Synthesis of silver nanoparticles using root extract of Duchesnea indica and assessment of its biological activities," Arabian Journal of Chemistry, vol. 14, no. 5, p. 103110, 2021.
- [214] F. Khuda, Z. Iqbal, A. Khan, M. U. K. Sahibzada, M. Alam, A. Khusro et al., "Effect of fresh pomegranate juice on the pharmacokinetic profile of artemether: An openlabel, randomized, 2-period crossover study in healthy human volunteers," Journal of Pharmaceutical and Biomedical Analysis, vol. 203, p. 114179, 2021.

- [215] Q. Khalid, M. Ahmad, M. U. Minhas, F. Batool, N. S. Malik, and M. Rehman, "Novel β-cyclodextrin nanosponges by chain growth condensation for solubility enhancement of dexibuprofen: Characterization and acute oral toxicity studies," *Journal of Drug Delivery Science and Technology*, vol. 61, p. 102089, 2021.
- [216] S. Naeem, K. Barkat, N. S. Malik, and S. Maryam, "PF-127 based vildagliptin loaded polymeric hydrogels prepared by aqueous polymerization technique for treatment of diabetes mellitus," *Journal of Polymer Research*, vol. 28, no. 10, pp. 1–16, 2021.
- [217] U. R. Tulain, A. Mahmood, S. Aslam, A. Erum, N. S. Malik, A. Rashid, R. Kausar, and M. S. Alqahtani, "Formulation and Evaluation of Linum usitatissimum Mucilage-Based Nanoparticles for Effective Delivery of Ezetimibe," *International Journal of Nanomedicine*, vol. 16, p. 4579, 2021.
- [218] Sumaira, U. R. Tulain, A. Erum, M. A. Hussain, Sidra, N. S. Malik, A. Rashid, R. Kausar, N. Gohar, N. Shahid et al., "Fabrication, Characterization and Toxicity Evaluation of Chemically Cross linked Polymeric Network for Sustained Delivery of Metoprolol Tartrate," Designed Monomers and Polymers, vol. 24, no. 1, pp. 351–361, 2021.
- [219] S. Kausar, A. Erum, U. R. Tulain, M. A. Hussain, M. Farid-ul Haq, N. S. Malik, and A. Rashid, "Formulation, In Vitro Evaluation, and Toxicity Studies of A. vulgarisco-AAm Carrier for Vildagliptin," *Advances in Polymer Technology*, vol. 2021, p. 6634780, 2021.
- [220] S. Maryam, K. Barkat, I. Khalid, Y. Mehmood, M. A. Syed, N. S. Malik, and M. Aslam, "Polymeric blends of okra gum/gelatin prepared by aqueous polymerization technique: their characterization and toxicological evaluation," *Polymer Bulletin*, pp. 1–25, 2021.
- [221] Nadia Shamshad Malik and Mahmood Ahmad and Mohammed S. Alqahtani and Arshad Mahmood and Kashif Barkat and Muhammad Tariq Khan and Ume Ruqia Tulain and Ayesha Rashid, "B-cyclodextrin chitosan-based hydrogels with tunable pH-responsive properties for controlled release of acyclovir: design, characterization, safety, and pharmacokinetic evaluation," *Drug Delivery*, vol. 28, no. 1, pp. 1093–1108, 2021.
- [222] N. Rafique, M. Ahmad, M. U. Minhas, S. F. Badshah, N. S. Malik, and K. U. Khan, "Designing gelatin-based swellable hydrogels system for controlled delivery of salbutamol sulphate: characterization and toxicity evaluation," *Polymer Bulletin*, pp. 1–27, 2021.
- [223] M. Abbas, S. Jabeen, A. Idrees, M. S. Safdar, A. Safdar, M. Siddiqui, I. Hamid, and M. R. Sherazi, "Health-Related Quality of Life Among Senior Citizens in Territory of Islamabad Pakistan-A Community Based Cross-Sectional Study," Ageing International, pp. 1–12, 2021.

- [224] H. R. Afzal, N. u. H. Khan, K. Sultana, A. Mobashar, A. Lareb, A. Khan, A. Gull, H. Afzaal, M. T. Khan, M. Rizwan et al., "Schiff Bases of Pioglitazone Provide Better Antidiabetic and Potent Antioxidant Effect in a Streptozotocin-Nicotinamide-Induced Diabetic Rodent Model," ACS omega, vol. 6, no. 6, pp. 4470–4479, 2021.
- [225] I. Muhammad, S. Q. Abbas, M. Hassan, M. Majid, H.-Z. Jin, S. Bungau et al., "Stress Driven Discovery of Natural Products from Actinobacteria with Anti-Oxidant and Cytotoxic Activities Including Docking and ADMET Properties," International journal of molecular sciences, vol. 22, no. 21, p. 11432, 2021.
- [226] I. Naz, M. R. Khan, J. A. Zai, R. Batool, S. Maryam, and M. Majid, "Indigofera linifolia ameliorated CCl4 induced endoplasmic reticulum stress in liver of rat," *Journal of Ethnopharmacology*, vol. 285, p. 114826, 2021.
- [227] M. S. Iqbal, "Behavior of Pharmacists and Satisfaction of Patients in Coronavirus Disease-19 Pandemic," Asian Journal of Pharmaceutics (AJP): Free full text articles from Asian J Pharm, vol. 15, no. 1, pp. 151–156, 2021.
- [228] K. H. S. Karimov, M. M. Ahmed, M. Saleem, S. Shafique, M. Akmal et al., "Orange dye based field effect transistor as humidity sensor," Optoelectronics and Advanced Materials-Rapid Communications, vol. 14, no. September-October 2020, pp. 416–420, 2020.
- [229] U. F. Ahmed, M. M. Ahmed, and Q. D. Memon, "A modified analytical model for AlGaN/GaN FinFETs I-V characteristics," Semiconductor Science and Technology, vol. 35, no. 3, pp. 035 002-035 011, 2020.
- [230] S. Shafique, K. S. Karimov, M. Abid, M. M. Ahmed, and K. M. Akhmedov, "Carbon nanotubes, orange dye, and graphene powder based multifunctional temperature, pressure, and displacement sensors," *Journal of Materials Science: Materials in Electronics*, vol. 31, pp. 8893–8899, 2020.
- [231] K. Nasr and N. M. Khan, "Toward connectivity of a disconnected cluster in partitioned wireless sensor network for time-critical data collection," *International Journal of Distributed Sensor Networks*, vol. 16, no. 12, p. 1550147720984654, 2020.
- [232] H. Raza and N. M. Khan, "Tracking performance of robust RLS Algorithm for MIMO channel estimation," Wireless Personal Communications, vol. 111, no. 1, pp. 395–409, 2020.
- [233] M.-Y. M. Mirza and N. M. Khan, "G2A communication channel modeling and characterization using confocal prolates," Wireless Personal Communications, vol. 115, no. 1, pp. 745–787, 2020.
- [234] R. Saadia and N. M. Khan, "Single carrier-frequency division multiple access radar: Waveform design and analysis," *IEEE Access*, vol. 8, pp. 35742–35751, 2020.

- [235] M. Kamal Mazhar, M. J. Khan, A. I. Bhatti, and N. Naseer, "A novel roll and pitch estimation approach for a ground vehicle stability improvement using a low cost IMU," *Sensors*, vol. 20, no. 2, p. 340, 2020.
- [236] A. Hanif, Q. Ahmed, A. I. Bhatti, and G. Rizzoni, "A unified control framework for traction machine drive using linear parameters varying-based field-oriented control," *Journal of Dynamic Systems, Measurement, and Control*, vol. 142, no. 10, pp. 101 006– 10 116, 2020.
- [237] S. Ullah, Q. Khan, A. Mehmood, and A. I. Bhatti, "Robust backstepping sliding mode control design for a class of underactuated electro-mechanical nonlinear systems," Journal OF Electrical Engineering & Technology, vol. 15, pp. 1821–1828, 2020.
- [238] R. Ara, U. A. Khan, A. I. Bhatti, and B. W. Lee, "A reliable protection scheme for fast DC Fault Clearance in a VSC-Based Meshed MTDC Grid," *IEEE Access*, vol. 8, pp. 88188–88199, 2020.
- [239] M. F. Iqbal, Z. Khalid, M. Zahid, and A. Abdullah, "Accuracy improvement in amplitude comparison-based passive direction finding systems by adaptive squint selection," *IET Radar, Sonar & Navigation*, vol. 14, no. 5, pp. 662–668, 2020.
- [240] F. U. Rehman, M. R. Mufti, S. U. Din, H. Afzal, M. I. Qureshi, and D. M. Khan, "Adaptive smooth super-twisting sliding mode control of nonlinear systems with unmatched uncertainty," *IEEE Access*, vol. 8, pp. 177932–177940, 2020.
- [241] Z. Masood, R. Samar, and M. A. Z. Raja, "Design of fractional order epidemic model for future generation tiny hardware implants," *Future Generation Computer Systems*, vol. 106, pp. 43–54, 2020.
- [242] A.-u. Rehman, N. Ali, I. Taj, M. Sajid, K. S. Karimov et al., "An automatic mass screening system for cervical cancer detection based on convolutional neural network," Mathematical Problems in Engineering, vol. 2020, 2020.
- [243] M. Shafiq, I. A. Taj, M. Ghafoor, S. A. Tariq, A. Abbas, and A. Y. Zomaya, "Accelerating fingerprint identification using FPGA for large-scale applications," *Journal of Parallel and Distributed Computing*, vol. 141, pp. 35–48, 2020.
- [244] M. Ghafoor, S. A. Tariq, I. Taj, N. Jafri, and T. Zia, "Robust palmprint identification using efficient enhancement and two-stage matching technique," *IET Image Processing*, vol. 14, no. 11, pp. 2333–2342, 2020.
- [245] U. Rafique, S. U. Din, and H. Khalil, "Compact CPW-fed super wideband planar elliptical antenna," *International Journal of Microwave and Wireless Technologies*, pp. 1–8, 2020.
- [246] N. Zahid, J. Jiang, U. Rafique, and D. Eric, "A modified planar square-loop antenna for electronic article surveillance RFID applications," *Journal of Communications Technology and Electronics*, vol. 65, no. 10, pp. 1161–1166, 2020.

- [247] M. Tahir, I. A. Taj, P. A. Assuncao, and M. Asif, "Low complexity high efficiency coding of light fields using ensemble classifiers," *Journal of Visual Communication and Image Representation*, vol. 66, p. 102742, 2020.
- [248] E. Aamir and I. Hassan, "The impact of climate indices on precipitation variability in baluchistan, pakistan," *Tellus A: Dynamic Meteorology and Oceanography*, vol. 72, no. 1, pp. 1–46, 2020.
- [249] S. Janjua, I. Hassan, and S. Islam, "Role and relevance of three enabling conditions to resolve inter-provincial water conflicts in the indus basin within pakistan," Water Policy, vol. 22, no. 5, pp. 811–824, 2020.
- [250] M. Hassan and I. Hassan, "Improving ANN-based streamflow estimation models for the upper indus basin using satellite-derived snow cover area," Acta Geophysica, vol. 68, no. 6, pp. 1791–1801, 2020.
- [251] S. Janjua, I. Hassan, M. Zarghami, and S. Islam, "Addressing supply-demand gap in shared rivers using water diplomacy framework: utility of game theory in the indus river within pakistan," *Water Policy*, vol. 22, no. 5, pp. 789–810, 2020.
- [252] S. Janjua and I. Hassan, "Fuzzy AHP-TOPSIS multi-criteria decision analysis applied to the indus reservoir system in pakistan," Water Supply, vol. 20, no. 5, pp. 1933–1949, 2020.
- [253] S. Janjua and I. Hassan, "Transboundary water allocation in critical scarcity conditions: a stochastic bankruptcy approach," *Journal of Water Supply: Research and Technology—AQUA*, vol. 69, no. 3, pp. 224–237, 2020.
- [254] S. Janjua and I. Hassan, "Use of bankruptcy methods for resolving interprovincial water conflicts over transboundary river: Case study of indus river in pakistan," *River Research and Applications*, vol. 36, no. 7, pp. 1334–1344, 2020.
- [255] M. Khan and M. Ali, "Optimization of concrete stiffeners for confined brick masonry structures," *Journal of Building Engineering*, vol. 32, p. 101689, 2020.
- [256] S. Ahmed and M. Ali, "Use of agriculture waste as short discrete fibers and glass-fiber-reinforced-polymer rebars in concrete walls for enhancing impact resistance," *Journal of Cleaner Production*, vol. 268, p. 122211, 2020.
- [257] M. Khan, M. Cao, and M. Ali, "Cracking behaviour and constitutive modelling of hybrid fibre reinforced concrete," *Journal of Building Engineering*, vol. 30, p. 101272, 2020.
- [258] M. Khan, A. Rehman, and M. Ali, "Efficiency of silica-fume content in plain and natural fiber reinforced concrete for concrete road," Construction and Building Materials, vol. 244, p. 118382, 2020.
- [259] A. A. Khan, M. U. Zaheer, S. Asghar, and S. S. S. Gardezi, "Green rating assessment of a residential building in pakistan using leed's," *Open Journal of Science and Technology*, vol. 3, no. 2, pp. 126–139, 2020.

- [260] J. Ahmad, A. Mannan, M. Asim, and S. Ullah, "Characteristics of concrete modified with ground granulated blast-furnace slag (GGBS) as binding material," *International Journal of Emerging Trends in Engineering Research*, vol. 8, pp. 4711–4718, 2020.
- [261] R. Sabir, M. M. Khan, N. A. Sheikh, I. U. Ahad, and D. Brabazon, "Assessment of thermo-hydraulic performance of inward dimpled tubes with variation in angular orientations," *Applied Thermal Engineering*, vol. 170, p. 115040, 2020.
- [262] L. A. Khan and M. M. Khan, "Role of orientation of fins in performance enhancement of a latent thermal energy storage unit," Applied Thermal Engineering, vol. 175, p. 115408, 2020.
- [263] S. S. Warsi, R. Ahmad, S. H. I. Jaffery, M. H. Agha, and M. Khan, "Development of specific cutting energy map for sustainable turning: a study of Al 6061 T6 from conventional to high cutting speeds," *The International Journal of Advanced Manufacturing Technology*, vol. 106, no. 7, pp. 2949–2960, 2020.
- [264] M. A. Khan, S. H. I. Jaffery, M. Khan, M. Younas, S. I. Butt, R. Ahmad, and S. S. Warsi, "Multi-objective optimization of turning titanium-based alloy Ti-6Al-4V under dry, wet, and cryogenic conditions using gray relational analysis (GRA)," *The International Journal of Advanced Manufacturing Technology*, vol. 106, no. 9-10, pp. 3897–3911, 2020.
- [265] I. A. Manarvi and N. M. Matta, "Investigating information needs of saudi diabetic patients," *Current Diabetes Reviews*, vol. 15, no. 2, pp. 149–157, 2020.
- [266] I. A. Manarvi and N. M. Matta, "Design and development of key chain held insulin injectable device," Current Diabetes Reviews, vol. 16, 2020.
- [267] S. S. A. Gilani, A. Qayyum, R. N. B. Rais, and M. Bano, "SDNMesh: an SDN based routing architecture for wireless mesh networks," *IEEE Access*, vol. 8, pp. 136769– 136781, 2020.
- [268] K. A. Khaliq, O. Chughtai, A. Qayyum, and J. Pannek, "Reorientation of routing from IP to link layer for path selection in multi-hop networks," in *Global Advancements* in Connected and Intelligent Mobility: Emerging Research and Opportunities. IGI Global, 2020, pp. 227–252.
- [269] L. Zafar and N. Masood, "Impact of field of study trend on scientific articles," *IEEE Access*, vol. 8, pp. 128 295–128 307, 2020.
- [270] S. Ayaz and N. Masood, "Comparison of researchers' impact indices," *PLOS ONE*, vol. 15, no. 5, pp. 1–15, 2020.
- [271] M. W. Ahmed and M. T. Afzal, "FLAG-PDFe: features oriented metadata extraction framework for scientific publications," *IEEE Access*, vol. 8, pp. 99458–99469, 2020.
- [272] S. Maqsood, M. A. Islam, M. T. Afzal, and N. Masood, "A comprehensive author ranking evaluation of network and bibliographic indices," *Malaysian Journal of Library & Information Science*, vol. 25, no. 1, pp. 31–45, 2020.

- [273] S. Nazir, M. Asif, S. Ahmad, F. Bukhari, M. T. Afzal, and H. Aljuaid, "Important citation identification by exploiting content and section-wise in-text citation count," *PloS one*, vol. 15, no. 3, p. e0228885, 2020.
- [274] U. A. Chauhan, M. T. Afzal, A. Shahid, M. Abdar, M. E. Basiri, and X. Zhou, "A comprehensive analysis of adverb types for mining user sentiments on amazon product reviews," *World Wide Web*, vol. 23, pp. 1811–1829, 2020.
- [275] M. Ahmad, M. A. Qadir, A. Rahman, R. Zagrouba, F. Alhaidari, T. Ali, and F. Zahid, "Enhanced query processing over semantic cache for cloud based relational databases," *Journal Of Ambient Intelligence and Humanized Computing*, pp. 1–19, 2020.
- [276] R. Mumtaz and M. A. Qadir, "Custner: A rule-based named-entity recognizer with improved recall," *International Journal on Semantic Web and Information Systems*, vol. 16, pp. 110–127, 2020.
- [277] N. Ikram, M. Abdul Qadir, and M. T. Afzal, "SimExact Anefficient method to compute function similarity between proteins using gene ontology," *Current Bioinformatics*, vol. 15, no. 4, pp. 318–327, 2020.
- [278] N. M. Minhas, S. Masood, K. Petersen, and A. Nadeem, "A systematic mapping of test case generation techniques using UML interaction diagrams," *Journal of Software: Evolution and Process*, vol. 32, no. 6, p. e2235, 2020.
- [279] M. Rizwan, A. Nadeem, M. Iqbal, S. Sarwar, M. Safyan, and Z. U. Qayyum, "An adaptive software fault tolerant framework for ubiquitous vehicular technologies," *IEEE Communications Standards Magazine*, 2020.
- [280] S. R. Aziz, T. A. Khan, and A. Nadeem, "Efficacy of inheritance aspect in software fault prediction—a survey paper," *IEEE Access*, vol. 8, pp. 170548–170567, 2020.
- [281] Q. u. Zaman, A. Nadeem, and M. A. Sindhu, "Formalizing the use case model: A model-based approach," *Plos one*, vol. 15, no. 4, p. e0231534, 2020.
- [282] A. A. Toor, M. Usman, F. Younas, A. C. M Fong, S. A. Khan, and S. Fong, "Mining massive e-health data streams for IoMT enabled healthcare systems," *Sensors*, vol. 20, no. 7, p. 2131, 2020.
- [283] A. Mehboob and M. S. I. Malik, "Smart fraud detection framework for job recruitments," *Arabian Journal for Science and Engineering*, pp. 1–12, 2020.
- [284] M. Malik and A. Hussain, "Exploring the influential reviewer, review and product determinants for review helpfulness," *Artificial Intelligence Review*, vol. 53, no. 1, pp. 407–427, 2020.
- [285] M. S. I. Malik, "Predicting users' review helpfulness: the role of significant review and reviewer characteristics," *Soft Computing*, vol. 24, pp. 1–16, 2020.

- [286] S. Mehrban, M. W. Nadeem, M. Hussain, M. M. Ahmed, O. Hakeem, S. Saqib, M. M. Kiah, F. Abbas, M. Hassan, and M. A. Khan, "Towards secure fintech: A survey, taxonomy, and open research challenges," *IEEE Access*, vol. 8, pp. 23391–23406, 2020.
- [287] W. Sultan, N. Anjum, M. Stansfield, and N. Ramzan, "Hybrid local and global deep-learning architecture for salient-object detection," *Applied Sciences*, vol. 10, no. 23, p. 8754, 2020.
- [288] S. Bibi, N. Anjum, T. Amjad, G. McRobbie, and N. Ramzan, "Human interaction anticipation by combining deep features and transformed optical flow components," *IEEE Access*, vol. 8, pp. 137646–137657, 2020.
- [289] R. Ali, R. Khalid, and S. Qaiser, "A discrete event simulation analysis of the bullwhip effect in a multi-product and multi-echelon supply chain of fast moving consumer goods," *Pakistan Journal of Statistics and Operation Research*, vol. 16, no. 03, pp. 561–576, 2020.
- [290] M. A. Qureshi, J. A. Qureshi, A. Ahmed, S. Qaiser, R. Ali, A. Sharif et al., "The dynamic relationship between technology innovation and human development in technologically advanced countries: Fresh insights from quantiles-on-quantile approach," Social Indicators Research: An International and Interdisciplinary Journal for Quality-of-Life Measurement, vol. 152, no. 2, pp. 555–580, 2020.
- [291] S. A. Raza, W. Qazi, N. Shah, M. A. Qureshi, S. Qaiser, and R. Ali, "Drivers of intensive facebook usage among university students: an implications of U&G and TPB theories," *Technology in Society*, vol. 62, p. 101331, 2020.
- [292] S. A. Raza, N. Shah, M. A. Qureshi, S. Qaiser, R. Ali, and F. Ahmed, "Non-linear threshold effect of financial development on renewable energy consumption: evidence from panel smooth transition regression approach." *Environmental Science and Pollution Research International*, vol. 27, pp. 32034–32047, 2020.
- [293] S. Qaiser, N. Yusoff, F. K. Ahmad, and R. Ali, "Sentiment analysis of impact of technology on employment from text on twitter," *International Journal of Interactive Mobile Technologies (iJIM)*, vol. 14, no. 07, pp. 88–103, 2020.
- [294] M. Usman, G. Mustafa, and M. T. Afzal, "Ranking of author assessment parameters using logistic regression," *Scientometrics*, pp. 1–19, 2020.
- [295] F. Butt, M. Yasinzai, S. I. Malik, and A. Munir, "Isolation and characterization of leishmanial adenine aminohydrolase as a drug target," *Current computer-aided drug* design, 2020.
- [296] S. Hussain, Y.-J. Xie, D. Li, S. I. Malik, J.-c. Hou, E. L.-H. Leung, and X.-X. Fan, "Current strategies against COVID-19," *Chinese medicine*, vol. 15, no. 1, pp. 1–12, 2020.

- [297] M. T. Khan, M. T. Zeb, H. Ahsan, A. Ahmed, A. Ali, K. Akhtar, S. I. Malik, Z. Cui, S. Ali, A. S. Khan et al., "SARS-CoV-2 nucleocapsid and nsp3 binding: an in silico study," Archives of Microbiology, vol. 203, pp. 59–66, 2020.
- [298] M. T. Khan, A. C. Kaushik, Q. ul ain Rana, S. I. Malik, A. S. Khan, D.-Q. Wei, W. Sajjad, S. Ahmad, S. Ali, M. Irfan et al., "Characterization and synthetic biology of lipase from bacillus amyloliquefaciens strain," Archives of Microbiology, vol. 202, pp. 1497–1506, 2020.
- [299] M. T. Khan, S. Ali, M. T. Zeb, A. C. Kaushik, S. I. Malik, and D.-Q. Wei, "Gibbs free energy calculation of mutation in PncA and RpsA associated with pyrazinamide resistance," Frontiers in Molecular Biosciences, vol. 7, 2020.
- [300] A. Amin, T. Zahra, H. Raja, M. Amin, E. Dilshad, M. Naveed, and I. Ahmed, "Major natural sinks for harboring microorganisms with altered antibiotic resistance versus major human contributing sources of antibiotic resistance: a detailed insight," in *Antibiotics and Antimicrobial Resistance Genes in the Environment*. Elsevier, 2020, pp. 70–98.
- [301] A. Amin, I. Ahmed, N. Khalid, I. U. Khan, A. Ali, S. M. Dahlawi, and W.-J. Li, "Insights on comparative bacterial diversity between different arid zones of cholistan desert, pakistan," 3 BIOTECH, vol. 10, no. 5, p. 224, 2020.
- [302] E. Dilshad, M. Bibi, N. A. Sheikh, K. F. Tamrin, Q. Mansoor, Q. Maqbool, and M. Nawaz, "Synthesis of functional silver nanoparticles and microparticles with modifiers and evaluation of their antimicrobial, anticancer, and antioxidant activity," *Jour*nal of functional biomaterials, vol. 11, no. 4, p. 76, 2020.
- [303] B. H. Kiani, W. K. Kayani, A. U. Khayam, E. Dilshad, H. Ismail, and B. Mirza, "Artemisinin and its derivatives: A promising cancer therapy," *Molecular Biology Reports*, vol. 47, pp. 6321–6336, 2020.
- [304] A. U. Khayam, H. Patel, N. A. Faiola, A. E. F. Milla, E. Dilshad, B. Mirza, Y. Huang, and M. S. Sheikh, "Quinovic acid purified from medicinal plant fagonia indica mediates anticancer effects via death receptor 5," *Molecular and cellular biochemistry*, vol. 474, no. 1, pp. 159–169, 2020.
- [305] K. Khan, S. Safi, A. Abbas, Y. Badshah, E. Dilshad, M. Rafiq, K. Zahra, and M. Shabbir, "Unravelling structure, localization, and genetic crosstalk of KLF3 in human breast cancer," *BioMed Research International*, vol. 2020, p. 1354381, 2020.
- [306] E. Dilshad, H. Ismail, H. Waheed, M. Maaz, and Z. Khurshaid, "Strategies for genetic transformation of lactuca sativa," p. 95, 2020.
- [307] H. Ismail, S. Latif, F. Ijaz, and E. Dilshad, "Lactuca sativa: An edible source of medicinal benefits," p. 33, 2020.

- [308] H. Mehfooz, A. Saeed, M. Faisal, F. A. Larik, U. Muqadar, S. Khatoon, P. A. Channar, H. Ismail, S. Bilquees, S. Rashid et al., "Facile one-pot synthesis, butyryl-cholinesterase and α-glucosidase inhibitory activities, structure–activity relationship, molecular docking and DNA–drug binding analysis of meldrum's acid derivatives," Research on Chemical Intermediates, vol. 46, pp. 1–20, 2020.
- [309] S. Latif, H. Ismail, M. R. Khan, A. A. Rahim, R. Mehboob, E. Dilshad, M. Sajid, S. I. Haider, S. Anwaar, and M. N. Majeed, "Pharmacological evaluation of acacia modesta bark for antipyretic, anti-inflammatory, analgesic, antidepressant and anticoagulant activities in sprague dawley rats." Pakistan Journal of Pharmaceutical Sciences, vol. 33, no. 3, pp. 1015–1023, 2020.
- [310] E. Dilshad, H. Ismail, M. A. Khan, R. M. Cusido, and B. Mirza, "Metabolite profiling of artemisia carvifolia buch transgenic plants and estimation of their anticancer and antidiabetic potential," *Biocatalysis and Agricultural Biotechnology*, vol. 24, p. 101539, 2020.
- [311] M. Nadeem, U. Naz, and S. M. Bakhtiar, "TNF-α: common culprit of inflammatory diseases," *International Journal Bioautomation*, vol. 24, no. 1, p. 41, 2020.
- [312] N. I. Soomro, S. Iqbal, J. Iqbal, M. Imran, and S. M. Bakhtiar, "The potential impact of helicobacter pylori infection on the onset of metabolic disease," *Health Science Journal*, vol. 14, no. 6, pp. 1–8, 2020.
- [313] H. A. Dar, T. Zaheer, N. Ullah, S. M. Bakhtiar, T. Zhang, M. Yasir, E. I. Azhar, and A. Ali, "Pangenome analysis of mycobacterium tuberculosis reveals core-drug targets and screening of promising lead compounds for drug discovery," *Antibiotics*, vol. 9, no. 11, p. 819, 2020.
- [314] A. Malik, A. Gul, R. Amir, F. Munir, M. M. Babar, S. M. Bakhtiar, M. Q. Hayat, R. Z. Paracha, Z. Khalid, and H. Alipour, "Classification and computational analysis of arabidopsis thaliana sperm Cell-Specific F-Box Protein Gene 3p. AtFBP113," Frontiers in genetics, vol. 11, p. 1559, 2020.
- [315] T. Zaheer, M. Waseem, W. Waqar, H. A. Dar, M. Shehroz, K. Naz, Z. Ishaq, T. Ahmad, N. Ullah, S. M. Bakhtiar et al., "Anti-COVID-19 multi-epitope vaccine designs employing global viral genome sequences," PeerJ, vol. 8, p. e9541, 2020.
- [316] R. Malik, S. Fazal, and M. A. Kamal, "Computational analysis of dynamical fluctuations of oncoprotein E7 (HPV 16) for the hot spot residue identification using elastic network model," *Letters in Drug Design & Discovery*, vol. 17, no. 11, pp. 1393–1400, 2020.
- [317] R. M. Malik, S. Fazal, and M. A. Kamal, "Computational analysis of domains vulnerable to HPV-16 E6 Oncoprotein and corresponding hot spot residues," *Protein and Peptide Letters*, vol. 27, 2020.

- [318] S. Hussain, M. A. Ismael, and A. J. Chamkha, "Impinging jet into an open trapezoidal cavity partially filled with a porous layer," *International Communications in Heat and Mass Transfer*, vol. 118, p. 104870, 2020.
- [319] S. Hussain, H. F. Öztop, M. A. Qureshi, and N. Abu-Hamdeh, "Double diffusive buoyancy induced convection in stepwise open porous cavities filled nanofluid," *International Communications in Heat and Mass Transfer*, vol. 119, p. 104949, 2020.
- [320] S. Hussain, T. Armaghani, and M. Jamal, "Magnetoconvection and entropy analysis in t-shaped porous enclosure using finite element method," *Journal of Thermophysics and Heat Transfer*, vol. 34, no. 1, pp. 203–214, 2020.
- [321] M. Zia and R. Ali, "A multi recipient aggregate signcryption scheme based on elliptic curve," Wireless Personal Communications, vol. 115, no. 2, pp. 1465–1480, 2020.
- [322] M. S. Ashraf, R. Ali, and N. Hussain, "New fuzzy fixed point results in generalized fuzzy metric spaces with application to integral equations," *IEEE Access*, vol. 8, pp. 91 653–91 660, 2020.
- [323] M. Zia and R. Ali, "Cryptanalysis and improvement of a blind multi-document sign-cryption scheme," *Cryptologia*, pp. 1–15, 2020.
- [324] T. S. Ali and R. Ali, "A new chaos based color image encryption algorithm using permutation substitution and boolean operation," *Multimedia Tools and Applications;* Springer: Berlin/Heidelberg, Germany, vol. 79, pp. 1–21, 2020.
- [325] T. S. Ali and R. Ali, "A novel medical image signcryption scheme using TLTS and henon chaotic map," *IEEE Access*, vol. 8, pp. 71 974–71 992, 2020.
- [326] S. Shafique, M. Afzal, and R. Nawaz, "On the attenuation of fluid-structure coupled modes in a non-planar waveguide," *Mathematics and Mechanics of Solids*, vol. 25, p. 1081286520911443, 2020.
- [327] M. Afzal and S. Shafique, "Attenuation analysis of flexural modes with absorbent lined flanges and different edge conditions," *The Journal of the Acoustical Society of America*, vol. 148, no. 1, pp. 85–99, 2020.
- [328] M. Anwar, D.-e.-S. Sagheer, and R. Ali, "Fixed point theorems for (α, f) contractive mappings in extended b-metric spaces," *Journal of Mathematical Analysis*, vol. 11, pp. 43–51, 2020.
- [329] M. Anwar, R. A. Dur-e Shehwar Sagheer, and N. Hussain, "Wardowski type α-f-contractive approach for nonself multivalued mappings," University Polytechnica Of Bucharest Scientific Bulletin-Series A-Applied Mathematics and Physics, vol. 82, no. 1, pp. 69–78, 2020.
- [330] M. Abrar, M. Sagheer, and S. Hussian, "Thermodynamics analysis of joule heating and internal heat source over an inclined ciliated tube," *Physica A: Statistical Mechanics and its Applications*, vol. 549, p. 123983, 2020.

- [331] N. Akmal, M. Sagheer, S. Hussain, and A. Kamran, "Study of micropolar nanofluids with power-law spin gradient viscosity model by the keller box method," *Canadian Journal of Physics*, vol. 98, no. 1, pp. 16–27, 2020.
- [332] T. Sajid, M. Sagheer, and S. Hussain, "Role of maxwell velocity and smoluchowski temperature jump slip boundary conditions to non-newtonian carreau fluid," Frontiers in Heat and Mass Transfer (FHMT), vol. 14, pp. 1–12, 2020.
- [333] T. Sajid, M. Sagheer, S. Hussain, and F. Shahzad, "Impact of double-diffusive convection and motile gyrotactic microorganisms on magnetohydrodynamics bioconvection tangent hyperbolic nanofluid," *Open Physics*, vol. 18, no. 1, pp. 74–88, 2020.
- [334] I. Rashid, M. Sagheer, and S. Hussain, "Exact solution of stagnation point flow of MHD Cu–H2O nanofluid induced by an exponential stretching sheet with thermal conductivity," *Physica Scripta*, vol. 95, no. 2, p. 025207, 2020.
- [335] T. Sajid, M. Sagheer, and S. Hussain, "Impact of temperature-dependent heat source/sink and variable species diffusivity on radiative reiner-philippoff fluid," *Mathematical Problems in Engineering*, vol. 2020, pp. 1–16, 2020.
- [336] M. N. Abrar, M. Sagheer, and S. Hussain, "Entropy generation during peristaltically flowing nanofluid in an axisymmetric channel with flexible walls," *Physica Scripta*, vol. 95, no. 3, p. 035206, 2020.
- [337] M. Mansoor, N. Ellahi, A. Hassan, Q. A. Malik, A. Waheed, and N. Ullah, "Corporate Governance, Shariah Governance, and Credit Rating: A Cross-Country Analysis from Asian Islamic Banks," *Journal of Open Innovation: Technology, Market, and Complexity*, vol. 6, no. 4, p. 170, 2020.
- [338] A. Fraz, A. Hassan, and S. Chughtai, "Does Economic Integration Affect the Comovement between Financial Markets? Evidence from Pakistani equity market with its global partners," *Journal of Applied Economics and Business Studies*, vol. 4, no. 3, pp. 137–158, 2020.
- [339] Z. Javaira, A. Hassan, and S. Z. A. Shah, "Does pakistani investor exhibit herding behavior during financial crisis?" vol. 21, pp. 336–355, 2020.
- [340] M. H. Khan, A. Fraz, A. Hassan, and P. Abedifar, "Female board representation, risk-taking and performance: Evidence from dual banking systems," Finance Research Letters, vol. 37, p. 101541, 2020.
- [341] H. Raza, I. Hassan, and A. Rashid, "The impact of downside risk on expected return: Evidence from emerging economies," *Lahore journal of Business*, vol. 8, no. 1, pp. 91–106, 2020.
- [342] S. Ijaz, A. Hassan, A. Tarazi, and A. Fraz, "Linking bank competition, financial stability, and economic growth," *Journal of Business Economics and Management*, vol. 21, no. 1, pp. 200–221, 2020.

- [343] H. Raza, A. Hassan, and F. Gul, "Does pakistan stock exchange pay to bet against the beta?" City University Research Journal, vol. 10, no. 1, pp. 167–176, 2020.
- [344] R. M. Yasin, S. Bashir, M. V. Abeele, and J. Bartels, "Supervisor phubbing phenomenon in organizations: Determinants and impacts," *International Journal of Business Communication*, vol. 57, p. 2329488420907120, 2020.
- [345] S. Azeem, M. A. Zafar, and A. K. Khan, "The grapes are sour: An envier's attributional perspective of coworker impression management," *Journal of Management & Organization*, pp. 1–17, 2020.
- [346] S. Aziz, Z. Afaq, L. Muhammad, and B. Khan, "The role of media, word of mouth, and subjective norms in determining attitude and intentions to purchase family takaful schemes," *Journal of Islamic Business and Management*, vol. 10, no. 1, pp. 111–131, 2020.
- [347] A. Zahra, A. Zulzar, and S. Aziz, "The effect of atmospheric harmony on re patronage intentions among small consumers: the mediating role of hedonic value and the moderating role of past experience," *Journal of Consumer Marketing*, vol. 37, no. 5, pp. 1–21, 2020.
- [348] A. Hashmi, S. Ahmed, and I. Hassan, "Optimizing pakistan's water economy using hydro-economic modeling," *Journal of Business & Economics*, vol. 11, no. 2, pp. 111–124, 2020.
- [349] S. Ahmed, K. Munir, and H. Nadeem, "Relationship between foreign direct investment & financial market development-evidence from south asian markets," *Journal of Independent Studies & Research: Management & Social Sciences & Economics*, vol. 17, no. 2, pp. 53–66, 2020.
- [350] A. Sarwar and L. Muhammad, "Impact of organizational mistreatment on employee performance in the hotel industry," *International Journal of Contemporary Hospitality Management*, 2020.
- [351] L. Muhammad et al., "Mediating role of customer forgiveness between perceived justice and satisfaction," Journal of Retailing and Consumer Services, vol. 52, p. 101886, 2020.
- [352] U. Farooq, J. Ahmed, K. Ashfaq, G. u. Hassan Khan, and S. Khan, "National culture and firm financial performance: A mediating role of firm financing decision," *Cogent Business & Management*, vol. 7, no. 1, p. 1858640, 2020.
- [353] J. Ahmed and U. Farooq, "Financial development and trade credit: Moderating role of corruption," *City University Research Journal*, vol. 10, no. 3, 2020.
- [354] U. Farooq, J. Ahmed, and S. Khan, "Do the macroeconomic factors influence the firm's investment decisions? a generalized method of moments (gmm) approach," *International Journal of Finance & Economics*, 2020.

- [355] R. Anwar and J. A. Malik, "When does corporate social responsibility disclosure affect investment efficiency? a new answer to an old question," *SAGE Open*, vol. 10, no. 2, p. 2158244020931121, 2020.
- [356] R. Anwar and J. Ahmed, "Evaluating the moderating impact of family on the relationship between board independence and corporate social responsibility using propensity score matching," South African Journal of Business Management, vol. 51, no. 1, p. 10, 2020.
- [357] J. Khan, B. Javed, N. Mubarak, S. Bashir, and M. Jaafar, "Psychological empowerment and project success: The role of knowledge sharing," *IEEE Transactions on Engineering Management*, 2020.
- [358] J. Khan, M. Jaafar, B. Javed, N. Mubarak, and T. Saudagar, "Does inclusive leadership affect project success? the mediating role of perceived psychological empowerment and psychological safety," *International Journal of Managing Projects in Business*, vol. 13, no. 5, pp. 1077–1096, 2020.
- [359] M. Khan and A. Kamal, "Confirmatory factor analysis of implicit beliefs measure and the role of demographics among pakistani sample," *The Spanish Journal of Psychology*, vol. 23, 2020.
- [360] M. Khan and N. Aslam, "Perception of god's attributes for mental comfort in stressful life events," Foundation University Journal of Psychology, vol. 4, no. 2, pp. 37–45, 2020.
- [361] M. Khan and S. Zeb, "An adaptive approach towards COVID-19: managing psychosocial crisis," Foundation University Journal of Psychology, vol. 4, no. 2, pp. 11–15, 2020.
- [362] M. Khan and N. Aslam, "Prevalence of caffeine intake among cigarette smokers: Directing caffeine use disorder among pakistani population," *Pakistan Journal of Medical Research*, vol. 59, no. 1, pp. 15–21, 2020.
- [363] Q. Hayat, S. M. M. R. Naqvi *et al.*, "Antecedents and consequences of employee's greed: An empirical examination (evidence from pakistan)," *Global Regional Review*, vol. 4, no. 3, pp. 73–81, 2020.
- [364] S. Iqbal and M. I. Khan, "Spirituality as a predictor of psychological well-being: An explanatory mechanism of religiosity and sustainable consumption," *Religions*, vol. 11, no. 12, p. 634, 2020.
- [365] U. F. Gillani, M. I. Khan, M. W. Ishaq, K. Aziz, and M. N. Akram, "The factors of why the people of pakistan do not purchase paid apps," *International Journal of Online Marketing (IJOM)*, vol. 10, no. 2, pp. 44–56, 2020.
- [366] S. Safdar, H. Saghir, S. Faiz, R. Yasmin, N. Mubarak *et al.*, "Trust in leaders and job satisfaction of health care workers: Linking organizational justice to citizenship behavior," *The Journal of Social Sciences Research*, vol. 6, no. 8, pp. 737–744, 2020.

- [367] S. Safdar and S. Liu, "The influence of justice on commitment of pakistani bankers: job satisfaction as mediator," *International Journal of Public Administration*, vol. 43, no. 14, pp. 1183–1193, 2020.
- [368] U. Ullah, H. Badshah, Z. Malik, Z. Uddin, M. Alam, S. Sarwar, A. Aman, A.-u. Khan, and F. A. Shah, "Hepatoprotective effects of melatonin and celecoxib against ethanol-induced hepatotoxicity in rats," *Immunopharmacology and Immunotoxicology*, vol. 42, no. 3, pp. 255–263, 2020.
- [369] A. Khan, Z. Iqbal, S. Nazir, M. Alam, and A. Naz, "Evaluation of emesis control with orally disintegrating tablets and conventional tablets of domperidone: a randomized trial," *Latin American Journal OF Pharmacy*, vol. 39, no. 1, pp. 29–37, 2020.
- [370] M. T. Khan, H. Nadeem, A.-u. Khan, M. Abbas, M. Arif, N. S. Malik, Z. Malik, and I. Javed, "Amino acid conjugates of 2-mercaptobenzimidazole provide better anti-inflammatory pharmacology and improved toxicity profile," *Drug Development Research*, vol. 81, no. 8, pp. 1057–1072, 2020.
- [371] A. Mohsin Alvi, L. Tariq Al Kury, M. Umar Ijaz, F. Ali Shah, M. Tariq Khan, A. Sadiq Sheikh, H. Nadeem, A.-u. Khan, A. Zeb, and S. Li, "Post-treatment of Synthetic Polyphenolic 1, 3, 4 Oxadiazole Compound A3, Attenuated Ischemic Stroke-Induced Neuroinflammation and Neurodegeneration," *Biomolecules*, vol. 10, no. 6, p. 816, 2020.
- [372] S. Iqbal, F. A. Shah, K. Naeem, H. Nadeem, S. Sarwar, Z. Ashraf, M. Imran, T. Khan, T. Anwar, and S. Li, "Succinamide derivatives ameliorate neuroinflammation and oxidative stress in scopolamine-induced neurodegeneration," *Biomolecules*, vol. 10, no. 3, p. 443, 2020.
- [373] A. Rashid, U. R. Tulain, F. M. Iqbal, N. S. Malikd, and A. Erum, "Methyl cellulose-graft-acrylic acid hydrogels for sustained drug release of model drug nicorandil," *Gomal Journal of Medical Sciences*, vol. 18, no. 3, pp. 99–106, 2020.
- [374] Y. Mehmood, U. Farooq, H. Yousaf, H. Riaz, R. K. Mahmood, A. Nawaz, Z. Abid, M. Gondal, N. S. Malik, K. Barkat et al., "Antiviral activity of green silver nanoparticles produced using aqueous buds extract of syzygium aromaticum," Pak. J. Pharm. Sci, vol. 33, no. 2, pp. 839–845, 2020.
- [375] N. S. Malik, M. Ahmad, M. U. Minhas, R. Tulain, I. Khalid, K. Barkat, and A. Rashid, "Toxicological evaluation of xanthan gum based hydrogel formulation in wistar rats using single dose study," *Acta Poloniae Pharmaceutica*, vol. 77, no. 2, pp. 353–360, 2020.
- [376] N. S. Malik, M. Ahmad, M. U. Minhas, R. Tulain, K. Barkat, I. Khalid, and Q. Khalid, "Chitosan/xanthan gum based hydrogels as potential carrier for an antiviral drug: Fabrication, characterization, and safety evaluation," Frontiers in Chemistry, vol. 8, p. 50, 2020.

- [377] N. A. Salam, M. A. Naeem, N. S. Malik, M. Riaz, F. Aslam *et al.*, "Exploring the potential of tianeptine matrix tablets: Synthesis, physico-chemical characterization and acute toxicity studies." *Pakistan Journal of Pharmaceutical Sciences*, vol. 33, no. 1 (Supplementary), pp. 269–279, 2020.
- [378] N. U. Rehman, M. Abbas, M. Al-Rashida, A. Tokhi, M. A. Arshid, M. S. Khan, I. Ahmad, and K. Rauf, "Effect of 4-Fluoro-N-(4-Sulfamoylbenzyl) Benzene Sulfonamide on acquisition and expression of nicotine-induced behavioral sensitization and striatal adenosine levels," Drug Design, Development and Therapy, vol. 14, p. 3777, 2020.
- [379] N. U. Rehman, M. Al-Rashida, A. Tokhi, Z. Ahmed, F. Subhan, M. Abbas, M. A. Arshid, and K. Rauf, "Analgesic and antiallodynic Effects of 4-Fluoro-N-(4-Sulfamoylbenzyl) Benzene Sulfonamide in a murine model of pain," *Drug Design*, *Development and Therapy*, vol. 14, p. 4511, 2020.
- [380] N. U. Rehman, K. Esmaeilpour, S. Joushi, M. Abbas, M. al Rashida, K. Rauf, and Y. Masoumi-Ardakani, "Effect of 4-Fluoro-N-(4-sulfamoylbenzyl) Benzene Sulfon-amide on cognitive deficits and hippocampal plasticity during nicotine withdrawal in rats," *Biomedicine & Pharmacotherapy*, vol. 131, p. 110783, 2020.
- [381] S. Akhtar, M. Abbas, K. Naeem, M. Faheem, H. Nadeem, and A. Mehmood, "Benzimidazole derivative ameliorates opioid-mediated tolerance during anticancer-induced neuropathic pain in mice," *Anti-cancer agents in medicinal chemistry*, vol. 20, 2020.
- [382] M. Sona Khan, W. Trenet, N. Xing, B. Sibley, M. Abbas, M. al Rashida, K. Rauf, and C. D. Mandyam, "A novel sulfonamide, 4-FS, Reduces Ethanol Drinking and Physical Withdrawal Associated With Ethanol Dependence," *International Journal of Molecular Sciences*, vol. 21, no. 12, p. 4411, 2020.
- [383] M. Imran, L. T. Al Kury, H. Nadeem, F. A. Shah, M. Abbas, S. Naz, A.-u. Khan, and S. Li, "Benzimidazole containing acetamide derivatives attenuate neuroinflammation and oxidative stress in ethanol-induced neurodegeneration," *Biomolecules*, vol. 10, no. 1, p. 108, 2020.
- [384] S. Bashir and A. Safdar, "Coriander seeds: Ethno-medicinal, phytochemical and pharmacological profile," *Science of Spices and Culinary Herbs-Latest Laboratory*, *Pre-clinical*, and Clinical Studies, vol. 2, pp. 39–64, 2020.
- [385] S. Bashir, A.-u. Khan, M. Mahmood, M. Abbas, S. Akhtar, A. W. Khan, M. T. Aqeel, M. Akhlaq, and H. Ahmad, "Students' perception of the learning environment in private-sector pharmacy institutes of pakistan," *Pharmacy Education*, vol. 20, pp. 191–197, 2020.
- [386] A. H. Palla, A.-u.-H. Gilani, S. Bashir, and N. Ur Rehman, "Multiple mechanisms of flaxseed: Effectiveness in inflammatory bowel disease," *Evidence-Based Complementary and Alternative Medicine*, vol. 2020, pp. 1–16, 2020.

- [387] F. Khurshid, S. Bashir, and B. Noushad, "Prescription writing through the lens of the threshold concept framework: a narrative review," *Res Dev*, vol. 9, no. 11, p. 11, 2020.
- [388] S. Naz, M. Majid, and M. Zia, "Toxicity evaluation of green synthesized iron oxide nanoparticles in sprague-dawley rats: Biochemical and histological assessment," Biomedical and Environmental Sciences, vol. 33, no. 11, pp. 882–886, 2020.
- [389] M. W. Baig, B. Nasir, D. Waseem, M. Majid, M. Z. I. Khan, and I.-u. Haq, "Withametelin: a biologically active withanolide in cancer, inflammation, pain and depression," *Saudi Pharmaceutical Journal*, vol. 28, no. 12, pp. 1526–1537, 2020.
- [390] B. Nasir, M. W. Baig, M. Majid, S. M. Ali, M. Z. I. Khan, S. T. B. Kazmi, and I.-u. Haq, "Preclinical anticancer studies on the ethyl acetate leaf extracts of datura stramonium and datura inoxia," BMC Complementary Medicine and Therapies, vol. 20, no. 1, pp. 1–23, 2020.
- [391] S. U. Rehman, U. F. Ahmed, M. M. Ahmed, and U. Rafique, "An improved space charge distribution analytical model to assess field-effect transistor's intrinsic capacitors," *Turkish Journal of Electrical Engineering & Computer Sciences*, vol. 27, no. 6, pp. 4502–4517, 2019.
- [392] U. F. Ahmed, M. M. Ahmed, and Q. D. Memon, "A non-linear compact model for finfets output characteristics," *IET Circuits, Devices & Systems*, vol. 13, no. 8, pp. 1249–1254, 2019.
- [393] M. N. Khan, U. F. Ahmed, M. M. Ahmed, and S. Rehman, "An improved temperature dependent analytical model to predict algan/gan high electron mobility transistors ac characteristics," *International Journal of Numerical Modelling: Electronic Networks, Devices and Fields*, vol. 32, no. 6, p. e2648, 2019.
- [394] M. N. Khan, U. F. Ahmed, M. M. Ahmed, and S. Rehman, "Simulation and comparative analysis of the DC characteristics of submicron GaN HEMTs for use in CAD software," *Journal of Computational Electronics*, vol. 18, no. 2, pp. 482–491, 2019.
- [395] U. F. Ahmed and M. M. Ahmed, "An analytical model to assess dc characteristics of independent gate si finfets," *Turkish Journal of Electrical Engineering & Computer Sciences*, vol. 27, no. 4, pp. 2456–2465, 2019.
- [396] Z. Ahmed and M. M. Ahmed, "Sidelobe reduction and gain enhancement in higher order TM30 and tm70 mode rectangular patch antennas via partial notch loading," *IET Microwaves, Antennas & Propagation*, vol. 13, no. 12, pp. 1955–1962, 2019.
- [397] U. F. Ahmed and M. M. Ahmed, "A 3-d potential model to assess dc characteristics of Si FinFETs," *Journal of Computational Electronics*, vol. 18, no. 3, pp. 893–905, 2019.
- [398] Z. Ahmed, M. M. Ahmed, M. B. Ihsan, A. A. Chaudhary, and J. K. Arif, "Novel dual band patch antenna with gap coupled composite right/left-handed transmission

- line," International Journal of Microwave and Wireless Technologies, vol. 11, no. 1, pp. 87–93, 2019.
- [399] S. Fatima, U. Rafique, U. F. Ahmed, and M. M. Ahmed, "A global parameters extraction technique to model organic field effect transistors output characteristics," *Solid-State Electronics*, vol. 152, pp. 81–92, 2019.
- [400] S. U. Rehman, U. F. Ahmed, M. M. Ahmed, and M. N. Khan, "Temperature dependent analytical DC Model for Wide Bandgap MESFETs," *IEEE Access*, vol. 7, pp. 49 702–49 711, 2019.
- [401] H. Khalil, M. M. Ahmed, and U. Rafique, "Nose-cone conformal substrate-integrated waveguide slot array antenna for x-band radar applications," *International Journal of Antennas and Propagation*, vol. 2019, 2019.
- [402] I. Ullah and M. Ashraf, "Comparison of synchronization techniques under distorted grid conditions," *IEEE Access*, vol. 7, pp. 101 345–101 354, 2019.
- [403] I. Ullah and M. Ashraf, "A novel filter extracted equivalent control based fixed frequency sliding mode approach for power electronic converters conditions," *Energies*, vol. 12, no. 5, pp. 853–866, 2019.
- [404] R. Irfan, H. ur Rasheed, W. A. Toor, and M. Ashraf, "Performance analysis of adaptive algorithms for space-time adaptive processor (STAP) in phased array radar," *The Journal of Engineering*, vol. 2019, no. 19, pp. 6313–6317, 2019.
- [405] I. Ullah and M. Ashraf, "Sliding mode control for performance improvement of shunt active power filter," SN Applied Sciences, vol. 1, no. 6, p. 531, 2019.
- [406] A. R. Yasin, M. Ashraf, and A. I. Bhatti, "A novel Filter Extracted Equivalent Control based Fixed Frequency Sliding Mode Approach for power electronic converters," Energies, vol. 12, no. 5, p. 853, 2019.
- [407] A. R. Yasin, M. Ashraf, A. I. Bhatti, and A. A. Uppal, "Fixed frequency sliding mode control of renewable energy resources in DC micro grid," *Asian Journal of Control*, vol. 21, no. 4, pp. 2074–2086, 2019.
- [408] S. B. Javed, A. A. Uppal, A. I. Bhatti, and R. Samar, "Prediction and parametric analysis of cavity growth for the underground coal gasification project thar," *Energy*, vol. 172, pp. 1277–1290, 2019.
- [409] G. Murtaza, A. I. Bhatti, and Y. A. Butt, "Unified FDI and FTC scheme for air path actuators of a diesel engine using ISM extended with adaptive part," *Asian Journal of Control*, vol. 22, no. 1, pp. 117–129, 2019.
- [410] R. Anjum, A. I. Bhatti, A. Yar, and Q. Ahmed, "Cyclic torque imbalance detection in gasoline engines using a uniform second-order sliding mode observer," *Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering*, vol. 233, no. 13, pp. 3515–3527, 2019.

- [411] M. Tahir, I. A. Taj, P. A. Assuncao, and M. Asif, "Fast video encoding based on random forests," *Journal of Real-Time Image Processing*, pp. 1–21, 2019.
- [412] H. Raza and N. M. Khan, "Tracking performance of robust RLS algorithm for MIMO channel estimation," Wireless Personal Communications, pp. 1–15, 2019.
- [413] K. Shehzad, N. M. Khan, and J. Ahmed, "Impact of frequency reuse and flexible cell association on the performance of dense heterogeneous cellular networks using dual-slope path loss model," *IEEE Access*, vol. 7, pp. 166214–166234, 2019.
- [414] S. M. Gulfam, S. Junaid Nawaz, A. Baltzis, A. Ahmed, and N. M. Khan, "Characterization of angular spread and fading statistics of mmWave range (28 GHz and 38 GHz) outdoor and indoor radio propagation channels"," *Technologies (MDPI)*, vol. 7, pp. 1–9, 2019.
- [415] M. Muzzammil, T. Ahmad, N. M. Khan, and L. Wan, "Low cost, faster detection of cognitive radio through filter banks with bandpass sampling," *Physical Communica*tion, vol. 33, pp. 1–8, 2019.
- [416] M. Ghafoor, S. A. Tariq, T. Zia, I. A. Taj, A. Abbas, A. Hassan, and A. Y. Zomaya, "Multifeature view classifier," *IEEE Transactions on Cybernetics*, 2019.
- [417] M. Tahir, I. A. Taj, P. A. Assuncao, and M. Asif, "Low complexity high efficiency coding of light fields using ensemble classifiers," *Journal of Visual Communication* and Image Representation, vol. 66, p. 102742, 2019.
- [418] N. I. Ratyal, I. A. Taj, M. Sajid, N. Ali, A. Mahmood, and S. Razzaq, "Three-dimensional face recognition using variance-based registration and subject-specific descriptors," *International Journal of Advanced Robotic Systems*, vol. 16, no. 3, p. 1729881419851716, 2019.
- [419] N. Ratyal, I. A. Taj, M. Sajid, A. Mahmood, S. Razzaq, S. H. Dar, N. Ali, M. Usman, M. J. A. Baig, and U. Mussadiq, "Deeply learned pose invariant image analysis with applications in 3d face recognition," *Mathematical Problems in Engineering*, vol. 2019, 2019.
- [420] T. Zia, M. Ghafoor, S. A. Tariq, and I. A. Taj, "Robust fingerprint classification with bayesian convolutional networks," *IET Image Processing*, vol. 13, no. 8, pp. 1280–1288, 2019.
- [421] M. F. Iqbal, M. Zahid, D. Habib, and L. K. John, "Efficient prediction of network traffic for real-time applications," *Journal of Computer Networks and Communications*, vol. 2019, 2019.
- [422] Z. Masood, R. Samar, and M. A. Z. Raja, "Design of a mathematical model for the stuxnet virus in a network of critical control infrastructure," *Computers & Security*, vol. 87, p. 101565, 2019.

- [423] Z. Masood, K. Majeed, R. Samar, and M. A. Z. Raja, "Design of epidemic computer virus model with effect of quarantine in the presence of immunity," *Fundamenta Informaticae*, vol. 161, no. 3, pp. 249–273, 2019.
- [424] S. M. Shah, R. Samar, and M. A. Z. Raja, "Fractional-order algorithms for tracking rayleigh fading channels," *Nonlinear Dynamics*, vol. 92, no. 3, pp. 12493–1259, 2019.
- [425] M. R. Mufti, H. Afzal, F. Ur-Rehman, W. Aslam, and M. I. Qureshi, "Transmission projective synchronization of multiple non-identical coupled chaotic systems using sliding mode control," *IEEE Access*, vol. 7, pp. 17847–17861, 2019.
- [426] S. Ud Din, F. Ur Rehman, and Q. Khan, "Smooth super-twisting sliding mode control for the class of underactuated systems," *PloS one*, vol. 13, no. 10, p. e0203667, 2018.
- [427] F. Ur Rahman, Q. Khan, and R. Akmeliawati, "Synchronization and antisynchronization protocol design of chaotic nonlinear gyros: an adaptive integral sliding mode approach," *Turkish Journal of Electrical Engineering & Computer Sciences*, vol. 27, no. 1, pp. 675–684, 2019.
- [428] W. Abbasi, F. Ur Rehman, I. Shah, and A. Rauf, "Stablizing control algorithm for nonholonomic wheeled mobile robots using adaptive integral sliding mode," *Interna*tional Journal of Robotics and Automation, vol. 34, no. 2, 2019.
- [429] T. Irshad, "Comparative analysis of conventional VSC and MMC on the basis of output power quality and control performance," Ph.D. dissertation, Department of Electrical Engineering, Capital University of Science and ..., 2019.
- [430] K. A. Khaliq, O. Chughtai, A. Shahwani, A. Qayyum, and J. Pannek, "An emergency response system: Construction, validation, and experiments for disaster management in a vehicular environment," *Sensors*, vol. 19, no. 5, p. 1150, 2019.
- [431] K. A. Khaliq, O. Chughtai, A. Shahwani, A. Qayyum, and J. Pannek, "Road accidents detection, data collection and data analysis using v2x communication and edge/cloud computing," *Electronics*, vol. 8, no. 8, p. 896, 2019.
- [432] I. Hassan and I. Waqar, "Reducing water demands by adopting harvesting and recycling techniques in pakistan," *Journal of Biodiversity and Environmental Sciences* (*JBES*), vol. 14, no. 4, pp. 79–88, 2019.
- [433] S. S. S. Gardezi and N. Shafiq, "Operational carbon footprint prediction model for conventional tropical housing: a malaysian prospective," *International Journal of Environmental Science and Technology*, vol. 16, no. 12, pp. 7817–7826, 2019.
- [434] A. Gopinath, M. S. Kumar, and A. Elayaperumal, "Experimental investigations on mechanical properties of jute fiber reinforced composites with polyester and epoxy resin matrices," *Procedia Engineering*, vol. 97, pp. 2052–2063, 2019.
- [435] M. Zahid and M. Ali, "Efficiency of jute fibers in stabilized-earth-brick masonry work," 2019.

- [436] A. Wahab and M. Ali, "Effect of loading rates on behavior of concrete girders having GFRP rebars and jute fibers," 2019.
- [437] S. M. H. Sabri, "Behavior of jute fiber reinforced concrete having glass fiber reinforced polymer rebars for possible application in bridge pier," Ph.D. dissertation, Capital University, 2019.
- [438] F. Khan and M. Ali, "Dynamic response of interlocking plastic-block structure," 2019.
- [439] F. Qamar, T. Thomas, and M. Ali, "Improvement in lateral resistance of mortar-free interlocking wall with plaster having natural fibres," Construction and Building Materials, vol. 234, p. 117387, 2019.
- [440] U. Khan, D. Shams, F. Khalid, and M. Ali, "IUse of local bagasse-ash and recycled-concrete-aggregates as partial replacement of sand and coarse- aggregates in concrete for non-structural applications," 2019.
- [441] N. Ajaz, A. Rashid, and M. Ali, "Effect of column uplift on dynamic response of 3D structure," 2019.
- [442] F. Qamar, T. Thomas, and M. Ali, "Assessment of mechanical properties of fibrous mortar and interlocking soil stabilised block (ISSB) for low-cost masonry housing," *Materiales de Construcción*, vol. 69, no. 336, p. 201, 2019.
- [443] F. Qamar, T. Thomas, and M. Ali, "Assessment of mechanical properties of fibrous mortar and interlocking soil stabilised block (ISSB) for low-cost masonry housing," *Materials de Construction*, vol. 69.
- [444] M. Khan and M. Ali, "Improvement in concrete behavior with fly ash, silica-fume and coconut fibres," *Construction and Building Materials*, vol. 203, pp. 174–187, 2019.
- [445] T. Hussain and M. Ali, "Improving the impact resistance and dynamic properties of jute fiber reinforced concrete for rebars design by considering tension zone of FRC," Construction and Building Materials, vol. 213, pp. 592–607, 2019.
- [446] M. U. Farooqi and M. Ali, "Effect of pre-treatment and content of wheat straw on energy absorption capability of concrete," *Construction and Building Materials*, vol. 224, pp. 572–583, 2019.
- [447] G. A. Anwar, F. Dinu, and M. Ahmed, "Numerical study on ultimate deformation and resistance capacity of bolted T-Stub connection," *International Journal of Steel Structures*, vol. 19, no. 3, pp. 970–977, 2019.
- [448] T. Ahmed, K. Arooj, H. S. Ranja, F. M. U, and M. Ali, "Prospects of NFRC for pavements in developing countries," 2019.
- [449] K. M. Mehdi, U. Tahir, Q. Salar, S. Gul, and M. Ali, "Influence of bio-based admixture on the behavior of concrete," 2019.

- [450] L. A. Khan, M. M. Khan, A. Jan, and S. A. kazmi, "Acceleration of charging process of a horizontal latent thermal energy storage unit with longitudinal fins," 2019.
- [451] R. Sabir, M. M. Khan, and N. Sheikh, "Assessment of thermo-hydraulic performance of inward dimpled tubes with variation in angular orientations," *Applied Thermal Engineering*, vol. 170, p. 115040, 2019.
- [452] S. O. B. Islam, W. A. Lughmani, W. S. Qureshi, A. Khalid, M. A. Mariscal, and S. Garcia-Herrero, "Exploiting visual cues for safe and flexible cyber-physical production systems," *Advances in Mechanical Engineering*, vol. 11, no. 12, p. 1687814019897228, 2019.
- [453] M. Khan, A. Khalid, W. A. Lughmani, and M. M. Khan, "Wave power potential estimation in the exclusive economic zone: A case study," 2019.
- [454] S. Rasheed, W. A. Lughmani, A. Khalid, and M. M. Khan, "Modelling of human robot accident interaction to assess impact and damage in a smart factory context," 2019.
- [455] I. S O, L. A. Khan, A. Khalid, and W. A. Lughmani, "Book chapter" a smart micro factory design: An integrated approach," *Computers & Industrial Engineering*, vol. 129, pp. 220–227, 2019.
- [456] S. S. Warsi, M. H. Agha, R. Ahmad, S. H. I. Jaffery, and M. Khan, "Sustainable turning using multi-objective optimization: a study of al 6061 t6 at high cutting speeds," *The International Journal of Advanced Manufacturing Technology*, vol. 100, no. 1-4, pp. 843–855, 2019.
- [457] S. S. Warsi, S. R. Ahmad, H. I. Jaffery, M. H. Agha, and M. Khan, "Sustainable machining: a comprehensive analysis of energy consumption during turning of Al 6061 T6 alloy," 2019.
- [458] T. Zahid, A. Baqai, and T. Schmidt, "meta-heuristics approach for the development of alternative process plans in reconfigurable systems," 2019.
- [459] T. Zahid, M. H. Agha, and T. Schmidt, "Investigation of surrogate measures of robustness for project scheduling problems," *Computers & Industrial Engineering*, vol. 129, pp. 220–227, 2019.
- [460] Q. Mahmood and M. A. Qadir, "A comprehensive analysis of content based similarity techniques for finding the redundancies and missing gaps in research papers features utilization," 2019.
- [461] I. Ihsan and M. A. Qadir, "CCRO: Citation's Context & Reasons Ontology," IEEE Access, vol. 7, pp. 30423–30436, 2019.
- [462] M. U. Sadiq, M. M. Yousaf, L. Aslam, M. Aleem, S. Sarwar, and S. W. Jaffry, "NvPD: novel parallel edit distance algorithm, correctness, and performance evaluation," *Cluster Computing*, pp. 1–16, 2019.

- [463] M. A. Iqbal, M. Aleem, M. Ibrahim, S. Anwar, and M. A. Islam, "Amazon cloud computing platform EC2 and VANET simulations," *International Journal of Ad Hoc and Ubiquitous Computing*, vol. 30, no. 3, pp. 127–136, 2019.
- [464] R. Khan, M. A. Islam, M. Ullah, M. Aleem, and M. A. Iqbal, "Privacy exposure measure: A privacy-preserving technique for health-related web search," *Journal of Medical Imaging and Health Informatics*, vol. 9, no. 6, pp. 1196–1204, 2019.
- [465] F. Shahid, M. Aleem, M. A. Islam, M. A. Iqbal, M. M. Yousaf *et al.*, "A review of technological tools in teaching and learning computer science," *Eurasia Journal of Mathematics, Science and Technology Education*, vol. 15, no. 11, 2019.
- [466] A. Hussain, M. Aleem, M. A. Iqbal, and M. A. Islam, "Investigation of cloud scheduling algorithms for resource utilization using cloudsim." *Computing & Informatics*, vol. 38, no. 3, 2019.
- [467] Y. N. Khalid, M. Aleem, U. Ahmed, M. A. Islam, and M. A. Iqbal, "Troodon: a machine-learning based load-balancing application scheduler for CPU-GPU system," *Journal of Parallel and Distributed Computing*, vol. 132, pp. 79–94, 2019.
- [468] M. Aleem, R. Prodan, M. A. Islam, and M. A. Iqbal, "On the parallel programmability of java symphony for multi-cores and clusters," *International Journal of Ad Hoc and Ubiquitous Computing*, vol. 30, no. 4, pp. 247–264, 2019.
- [469] A. Hussain, M. Aleem, M. A. Iqbal, and M. A. Islam, "SLA-RALBA: cost-efficient and resource-aware load balancing algorithm for cloud computing," *The Journal of Supercomputing*, pp. 1–27, 2019.
- [470] A. Shahid, M. T. Afzal, M. Abdar, M. E. Basiri, X. Zhou, N. Y. Yen, and J.-W. Chang, "Insights into relevant knowledge extraction techniques: a comprehensive review," *The Journal of Supercomputing*, pp. 1–39, 2019.
- [471] U. Ahmed, H. Waqas, and M. T. Afzal, "Pre-production box-office success quotient forecasting," *Soft Computing*, pp. 1–19, 2019.
- [472] M. Ameer and M. T. Afzal, "Evaluation of h-index and its qualitative and quantitative variants in neuroscience," *Scientometrics*, vol. 121, no. 2, pp. 653–673, 2019.
- [473] A. M. Khan, A. Shahid, M. T. Afzal, F. Nazar, F. S. Alotaibi, and K. H. Alyoubi, "SwICS: Section-wise in-text citation score," *IEEE Access*, vol. 7, pp. 137 090–137 102, 2019.
- [474] R. Ghani, F. Qayyum, M. T. Afzal, and H. Maurer, "Comprehensive evaluation of h-index and its extensions in the domain of mathematics," *Scientometrics*, vol. 118, no. 3, pp. 809–822, 2019.
- [475] Q.-u. Ain, H. Riaz, and M. T. Afzal, "Evaluation of h-index and its citation intensity based variants in the field of mathematics," *Scientometrics*, vol. 111, no. 1, pp. 187– 211, 2019.

- [476] M. T. Ikram and M. T. Afzal, "Aspect based citation sentiment analysis using linguistic patterns for better comprehension of scientific knowledge," Scientometrics, vol. 119, no. 1, pp. 73–95, 2019.
- [477] R. Habib and M. T. Afzal, "Sections-based bibliographic coupling for research paper recommendation," *Scientometrics*, vol. 119, no. 2, pp. 643–656, 2019.
- [478] S. Ur Rehman, A. Nadeem, and M. A. Sindhu, "Towards automated testing of multiagent systems using prometheus design models," in *The International Arab Journal of Information Technology*, 2019, vol. 16, no. 1, pp. 54–65.
- [479] M. Rizwan, A. Nadeem, and M. A. Sindhu, "Analyses of classifier's performance measures used in software fault prediction studies," *IEEE Access*, vol. 7, pp. 82764– 82775, 2019.
- [480] N. M. Minhas, S. Masood, K. Petersen, and A. Nadeem, "A systematic mapping of test case generation techniques using uml interaction diagram," *Journal of Software:* Evolution and Process, 2019.
- [481] S. R. Aziz, T. Khan, and A. Nadeem, "Experimental validation of inheritance metrics' impact on software fault prediction," *IEEE Access*, vol. 7, pp. 85 262–85 275, 2019.
- [482] F. Nazir, M. N. Majeed, M. A. Ghazanfar, and M. Maqsood, "An arabic mispronunciation detection system based on frequency of mistakes for asian speakers," 2019.
- [483] S. Afzal, M. Maqsood, F. Nazir, U. Khan, F. Aadil, K. M. Awan, I. Mehmood, and O.-Y. Song, "A data augmentation-based framework to handle class imbalance problem for Alzheimer's stage detection," *IEEE Access*, vol. 7, pp. 115528–115539, 2019.
- [484] M. Maqsood, F. Nazir, U. Khan, F. Aadil, H. Jamal, I. Mehmood, and O.-y. Song, "Transfer learning assisted classification and detection of alzheimer's disease stages using 3D MRI scans," *Sensors*, vol. 19, no. 11, p. 2645, 2019.
- [485] F. Nazir, M. N. Majeed, M. A. Ghazanfar, and M. Maqsood, "Mispronunciation detection using deep convolutional neural network features and transfer learning-based model for arabic phonemes," *IEEE Access*, vol. 7, pp. 52589–52608, 2019.
- [486] F. Nazir, M. A. Ghazanfar, M. Maqsood, F. Aadil, S. Rho, and I. Mehmood, "Social media signal detection using tweets volume, hashtag, and sentiment analysis," *Multimedia Tools and Applications*, vol. 78, no. 3, pp. 3553–3586, 2019.
- [487] K. Shaukat, N. Masood, and M. Khushi, "A novel approach to data extraction on hyperlinked webpages," *Applied Sciences*, vol. 9, no. 23, p. 5102, 2019.
- [488] U. Ahmed, M. Aleem, Y. Noman Khalid, M. Arshad Islam, and M. Azhar Iqbal, "RALB-HC: a resource-aware load balancer for heterogeneous cluster," Concurrency and Computation: Practice and Experience, p. e5606, 2019.

- [489] M. Ubaid Ur Rehman, M. Aleem, M. A. Islam, and S. Ahmed, "Smart applications for diabetes management: A comprehensive survey and ranking," *Health Informatics Journal*, p. 1460458219869159, 2019.
- [490] I. Qasim, M. W. Anwar, F. Azam, H. Tufail, W. H. Butt, and M. N. Zafar, "An introduction to model-driven mobile HMI Framework (MMHF) for industrial control systems," 2019.
- [491] I. Qasim, M. W. Anwar, F. Azam, H. Tufail, W. H. Butt, and M. N. Zafar, "A model-driven mobile HMI Framework (MMHF) for industrial control systems," *IEEE Access*, vol. 8, pp. 10827–10846, 2019.
- [492] M. Zahid, I. Inayat, M. Daneva, and Z. Mehmood, "A security risk mitigation framework for cyber physical systems," *Journal of software: Evolution and Process*, p. e2219, 2019.
- [493] M. T. Khan and S. I. Malik, "Structural dynamics behind variants in pyrazinamidase and pyrazinamide resistance," *Journal of Biomolecular Structure and Dynamics*, pp. 1–15, 2019.
- [494] M. T. Khan, A. C. Kaushik, A. I. Bhatti, Y.-J. Zhang, S. Zhang, A. J. Wei, S. I. Malik, and D. Q. Wei, "Marine natural products and drug resistance in latent tuberculosis," *Marine Drugs*, vol. 17, no. 10, p. 549, 2019.
- [495] A. U. Rehman, M. T. Khan, H. Liu, A. Wadood, S. I. Malik, and H.-F. Chen, "Exploring the pyrazinamide drug resistance mechanism of clinical mutants T370P and W403G in Ribosomal Protein S1 of mycobacterium tuberculosis," *Journal of chemical information and modeling*, vol. 59, no. 4, pp. 1584–1597, 2019.
- [496] S. I. Malik, S. Ali, N. Masood, T. Nadeem, A. S. Khan, M. T. Afzal et al., "Pyrazinamide resistance and mutations in pncA among isolates of Mycobacterium tuberculosis from Khyber Pakhtunkhwa, Pakistan," BMC infectious diseases, vol. 19, no. 1, p. 116, 2019.
- [497] M. T. Khan, A. C. Kaushik, S. I. Malik, S. Ali, and D. Wei, "Artificial neural networks for prediction of tuberculosis disease," *Frontiers in microbiology*, vol. 10, no. 1, p. 395, 2019.
- [498] E. Dilshad, N. Zahra, Z. Nooruddin, A. Butt, and S. m. Bakhtiar, "Single-cell editing: The crispr/cas9 and applications," pp. 397–415, 2019.
- [499] H. Raja, E. Dilshad, S. Tayyaba, and A. Amin, "Isolation and screening of bacteria for their role in oil recovery and metal tolerance from petroleum reservoirs," 2019.
- [500] S. Rehman, K. Keefover-Ring, I. ul Haq, E. Dilshad, M. I. Khan, N. Akhtar, and B. Mirza, "Drier climatic conditions increase withanolide content of withania coagulans enhancing its inhibitory potential against human prostate cancer cells," Applied biochemistry and biotechnology, vol. 188, no. 2, pp. 460–480, 2019.

- [501] I. Younus, H. Ismail, E. D. Chahat Batool Rizvi, K. Saba, B. Mirza, and M. Tahir, "Antioxidant, analgesic and anti-inflammatory activities of in vitro and field-grown iceberg lettuce extracts," *Journal of Pharmacy & Pharmacognosy Research*, vol. 7, no. 5, pp. 343–355, 2019.
- [502] E. Dilshad, S. S. Tazeem, Z. Bashir, A. H. Iqbal, A. S. Khokhar, N. Zahra, M. A. Khan, H. Ismail, and M. Shabbir, "Silver nanoparticles of aloe vera gel as strong therapeutic candidates."
- [503] A. Kazmi, M. A. Khan, and H. Ali, "Biotechnological approaches for production of bioactive secondary metabolites in Nigella sativa: an up-to-date review," *Interna*tional Journal of Secondary Metabolite, vol. 6, no. 2, pp. 172–195, 2019.
- [504] H. Ali, M. A. Khan, W. K. Kayani, E. Dilshad, R. Rani, and R. S. Khan, "Production of biomass and medicinal metabolites through adventitious roots in ajuga bracteosa under different spectral lights," *Journal of Photochemistry and Photobiology B: Biol*ogy, vol. 193, pp. 109–117, 2019.
- [505] S. Zafar, E. Dilshad, H. Ismail, C. B. Rizvi, and B. Mirza, "Rol genes enhance content of artemisinin and other secondary metabolites in shennong hybrid of artemisia annua," *Chinese Herbal Medicines*, vol. 11, no. 2, pp. 209–215, 2019.
- [506] M. S. Khan, B. Mehmood, Q. Yousafi, S. Bibi, S. Fazal, S. Saleem, M. W. Sajid, A. Ihsan, M. Azhar, and M. A. Kamal, "Rhein from rhubarb (rheum rhabarbarum) as a putative inhibitor of atp-binding cassette super family g member 2," *Medicinal chemistry (Shariqah (United Arab Emirates))*, 2019.
- [507] A. Kanwal, S. Fazal, A. I. Bhatti, M. Ullah, and M. A. Khalid, "PubMedInfo Crawler: An innovative extraction process that leads towards biological information mining," *Meta Gene*, vol. 20, p. 100550, 2019.
- [508] A. Amin, I. Ahmed, N. K. Khalid, P. Schumann, and H. Jurgen, "Arthrobacter zafarii sp. nov., a moderately thermotolerant and halotolerant actinobacterium isolated from Cholistan desert soil of Pakistan," *International Journal of Systematic and Evolutionary Microbiology*, 2019.
- [509] A. Amin, I. Ahmed, N. Khalid, I. U. Khan, and A. Ali, "Bacterial diversity of cholistan desert, pakistan:insights on the comparative analysis between different arid zones," *Microorganisms*, 2019.
- [510] E. Dilshad, N. Zahra, Z. Nooruddin, A. A. Butt, and S. M. Bakhtiar, "Single-cell editing: The CRISPR/Cas9 and applications," in *Single-Cell Omics*. Elsevier, 2019, pp. 397–415.
- [511] F. Nawaz, M. N. Khan, A. Javed, I. Ahmed, N. Ali, M. I. Ali, S. M. Bakhtiar, and M. Imran, "Genomic and functional characterization of enterococcus mundtii QAUEM2808, isolated from artisanal fermented milk product dahi," Frontiers in Microbiology, vol. 10, 2019.

- [512] H. Qayyum and S. M. Bakhtiar, "Single Cell Omics in cardiovascular diseaes," 2019.
- [513] S. A and S. M. Bakhtiar, "Etiology, prevalence, treatment of cusing syndrome and its involvement with other diseases," *Precision Medicine*, vol. 3, 2019.
- [514] F. M and S. M. Bakhtiar, "Homochromatosis- the trigger of type ii diabetes," *Precision Medicine*, vol. 3, 2019.
- [515] H. A. Butt, S. Gul, A. Azam, A. Aftab, and S. M. Bakhtiar, "Nutrigenetics and pharmacogenetics approaches in management of obesity," *Precision Medicine*, vol. 3, 2019.
- [516] I. S. Naveed, N. Afzal, M. Fiyaz, M. Nadeem, and S. M. Bakhtiar, "Precision medicine for multifactorial disorders," *Precision Medicine*, vol. 3, 2019.
- [517] H. Saira, A. Noor, I. Riasat, M. Qasim, and S. M. Bakhtiar, "Etiology, genetics, clinical manifestations and possible treatments of acromegaly," *Precision Medicine*, vol. 3, 2019.
- [518] M. N. Abrar, M. Sagheer, and S. Hussain, "Entropy formation analysis for the peristaltic motion of ferrofluids in the presence of joule heating and fluid friction phenomena in a plumb duct," *Journal of Nanofluids*, vol. 8, no. 6, pp. 1305–1313, 2019.
- [519] M. Sagheer, S. Shah, S. Hussain, and M. Akhtar, "Impact of non-uniform heat source/sink on magnetohydrodynamic maxwell nanofluid flow over a convectively heated stretching surface with chemical reaction," *Journal of Nanofluids*, vol. 8, no. 4, pp. 795–805, 2019.
- [520] F. Shahzad, M. Sagheer, and S. Hussain, "Numerical solution of rotating flow of a nanofluid over a stretching surface in the presence of magnetic field," *Journal of Nanofluids*, vol. 8, no. 2, pp. 359–370, 2019.
- [521] I. Rashid, M. Sagheer, and S. Hussain, "Exact solution of stagnation point flow of MHD cu-h 2 o nanofluid induced by an exponential stretching sheet with thermal conductivity," *Physica Scripta*, vol. 95, no. 2, p. 025207, 2019.
- [522] I. Rashid, M. Sagheer, and S. Hussain, "Entropy formation analysis of MHD boundary layer flow of nanofluid over a porous shrinking wall," *Physica A: Statistical Mechanics and its Applications*, vol. 536, p. 122608, 2019.
- [523] F. Shahzad, M. Sagheer, and S. Hussain, "Mhd tangent hyperbolic nanofluid with chemical reaction, viscous dissipation and joule heating effects," AIP Advances, vol. 9, no. 2, p. 025007, 2019.
- [524] S. Batul, R. Ali, D. Shehwar, and N. Husain, "Nadler's fixed point theorem in c? algebra valued metric spaces with applications," 2019.
- [525] S. Inam, S. Kanwal, and R. Ali, "Cryptosystem based on polynomials over circulant matrices," 2019.

- [526] M. Zia and R. Ali, "Cryptanalysis of an encryption scheme that uses elliptic curve over finite field," 2019.
- [527] F. Mehmood, R. Ali, and N. Hussain, "Fixed point result s for multivalued mappings in extended fuzzy b-metric space," 2019.
- [528] M. Sohail Ashraf, R. Ali, and N. Hussain, "New fixed point results in generalised fuzzy metric spaces with applications," 2019.
- [529] R. Ali, M. Mubashar, and S. Batul, "A groebner bas is attack on a multivariate polynomial public key cryptosystem," 2019.
- [530] F. Mehmood, R. Ali, and N. Hussain, "Contractions in fuzzy rectangular b-metric spaces with application," *Journal of Intelligent & Fuzzy Systems*, no. Preprint, pp. 1–11, 2019.
- [531] M. Zia and R. Ali, "Cryptanalysis and improvement of blind signcryption scheme based on elliptic curve," *Electronics Letters*, vol. 55, no. 8, pp. 457–459, 2019.
- [532] S. Atif, S. Hussain, and M. Sagheer, "Effect of thermal radiation on MHD micropolar carreau nanofluid with viscous dissipation, joule heating, and internal heating," *Scientia Iranica*, vol. 26, no. 6, pp. 3875–3888, 2019.
- [533] S. Hussain, K. Mehmood, M. Sagheer, and A. Ashraf, "Mixed convective magnetonanofluid flow over a backward facing step and entropy generation using extended darcy-brinkman-forchheimer model," *Journal of Thermal Analysis and Calorimetry*, vol. 138, 2019.
- [534] S. M. Atif, S. Hussain, and M. Sahheer, "Numerical simulation of mixed convective magnetonanofluid flow and entropy generation over backward facing step with darcybrinkman- forchheimer model," *Journal of Thermal Analysis and Calorimetry*, vol. 138, pp. 3183–3203, 2019.
- [535] S. Atif, S. Hussain, and M. Sagheer, "Effect of viscous dissipation and joule heating on MHD radiative tangent hyperbolic nanofluid with convective and slip conditions," *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, vol. 41, no. 4, p. 189, 2019.
- [536] A. Kamran, S. Hussain, and M. Sagheer, "Transport phenomena in marangoni driven Micropolar Alumina-Dihydrogen Oxide Nanofluid with thermal inertia," *Journal of Nanofluids*, vol. 8, no. 5, pp. 1123–1132, 2019.
- [537] M. Atlas, S. Hussain, and M. Sagheer, "Squeezing flow of upper convected maxwell nanofluid subject to entropy generation and cattaneo-christove double diffusion," *Journal of Nanofluids*, vol. 8, no. 2, pp. 420–429, 2019.
- [538] S. Shah, S. Hussain, M. Sagheer, and M. Bilal, "Numerical study of three dimensional mixed convective maxwell nanofluid flow over a stretching surface with non-linear thermal radiation and convective boundary conditions," *Journal of Nanofluids*, vol. 8, no. 1, pp. 160–170, 2019.

- [539] S. Hussain, T. Armaghani, and M. Jamal, "Magnetoconvection and entropy analysis in T-Shaped porous enclosure using finite element method," *Journal of Thermophysics and Heat Transfer*, pp. 1–12, 2019.
- [540] S. Hussain, H. F. Öztop, M. A. Qureshi, and N. Abu-Hamdeh, "Magnetohydrodynamic flow and heat transfer of ferrofluid in a channel with non-symmetric cavities," *Journal of Thermal Analysis and Calorimetry*, pp. 1–13, 2019.
- [541] S. Hussain, M. Jamal, and S. E. Ahmed, "Hydrodynamic forces and heat transfer of nanofluid forced convection flow around a rotating cylinder using finite element method: The impact of nanoparticles," *International Communications in Heat and Mass Transfer*, vol. 108, p. 104310, 2019.
- [542] S. Hussain and S. E. Ahmed, "Steady natural convection in open cavities filled with a porous medium utilizing buongiorno's nanofluid model," *International Journal of Mechanical Sciences*, vol. 157, pp. 692–702, 2019.
- [543] S. Hussain and S. E. Ahmed, "Unsteady MHD forced convection over a backward facing step including a rotating cylinder utilizing fe3o4-water ferrofluid," *Journal of Magnetism and Magnetic Materials*, vol. 484, pp. 356–366, 2019.
- [544] S. Hussain, H. F. Öztop, K. Mehmood, and M. E. Ali, "Mixed convection and entropy production in a nanofluid-filled closed space with inclined magnetic field," *Journal of Thermal Analysis and Calorimetry*, vol. 137, no. 5, pp. 1735–1755, 2019.
- [545] S. M. Atif, S. Hussain, and M. Sagheer, "Magnetohydrodynamic stratified bioconvective flow of micropolar nanofluid due to gyrotactic microorganisms," *AIP Advances*, vol. 9, no. 2, p. 025208, 2019.
- [546] S. M. Atif, S. Hussain, and M. Sagheer, "Heat and mass transfer analysis of time-dependent tangent hyperbolic nanofluid flow past a wedge," *Physics Letters A*, vol. 383, no. 11, pp. 1187–1198, 2019.
- [547] M. Atlas, S. Hussain, and M. Sagheer, "Entropy generation and unsteady Casson fluid flow squeezing between two parallel plates subject to Cattaneo-Christov heat and mass flux," *The European Physical Journal Plus*, vol. 134, no. 1, p. 33, 2019.
- [548] J. U. Satti, M. Afzal, and R. Nawaz, "Scattering analysis of a partitioned wave-bearing cavity containing different material properties," *Physica Scripta*, vol. 94, no. 11, p. 115223, 2019.
- [549] T. Nawaz, M. Afzal, and R. Nawaz, "The scattering analysis of trifurcated waveguide involving structural discontinuities," Advances in Mechanical Engineering, vol. 11, no. 7, p. 1687814019829282, 2019.
- [550] D. Shehwar, R. Ali, and S. Batool, "The C*-ALGEBRA valued caristi's fixed point theorem: A graphic version," *Journal of Mathematical Analysis*, vol. 10, 2019.
- [551] M. Anwar, D. Shehwar, R. Ali, and S. Batool, "Fixed point and common fixed point theorems on wardowski type mappings in sb-metric spaces," 2019.

- [552] M. Anwar, D. Shehwar, R. Ali, and N. Hussain, "Wardowski type?-F-contractive approach for nonself multivalued mappings," *University Politehnica of Bucharest Scientific BulletinSeries A-Applied Mathematics and Physics*, 2019.
- [553] S. Saeed and A. Hassan, "Liquidity commonality risk and asset pricing in emerging and developed stock," *NUML International Journal of Business & Management*, vol. 19, no. 2, pp. 92–110, 2019.
- [554] I. Yousaf and A. Hassan, "Linkages between crude oil and emerging asian stock markets: New evidence from the chinese stock market crash," Finance Research Letters, vol. 31, no. 4, pp. 207–217, 2019.
- [555] E. Ishaq, S. Bashir, and A. K. Khan, "Paradoxical leader behaviors: Leader personality and follower outcomes," *Applied Psychology*, 2019.
- [556] E. Ishaq, S. Bashir, A. K. Khan, M. M. Hassan, and R. Zakarira, "Epistemic curiosity and perceived workload: a moderated mediation model of achievement striving and overwork climate," *The International Journal of Human Resource Management*, pp. 1–24, 2019.
- [557] A. Sarwar, S. Bashir, and A. Karim Khan, "Spillover of Workplace Bullying Into Family Incivility: Testing a Mediated Moderation Model in a Time-Lagged Study," *Journal of Interpersonal Violence*, p. 0886260519847778, 2019.
- [558] L. Muhammad, I. Saba, and S. Aziz, "Maqasid al-shariah and islamic finance industry: Addressing the concerns," *Journal of Islamic Business and Management*, vol. 9, no. 2, pp. 368–376, 2019.
- [559] A. Sarwar and L. Muhammad, "Impact of employee perceptions of mistreatment on organizational performance in the hotel industry," *International Journal of Contemporary Hospitality Management*, 2019.
- [560] L. Muhammad, "Do service firm employee and customer relations matter for customer forgiveness in service recovery?" Asia Pacific Journal of Marketing and Logistics, vol. 29, pp. 1036–1054, 2019.
- [561] N. T. Bhutta, B. Simonetti, and V. Ventre, "Does islamic capital asset pricing model outperform conventional capital asset pricing model?" in *Decision Making in Social Sciences: Between Traditions and Innovations*. Springer, 2019, pp. 471–482.
- [562] A. Mahmood Ahmed and S. Anwar, "Taxicab app usage: Cues inquiry and classification," 2019.
- [563] M. Kamran, J. Ahmed, and I. Ullah, "Does islamic label indicate higher use of trade credit? evidence from shari 'ah compliant non-financial firms in pakistan," *Journal of Islamic Business and Management*, vol. 9, no. 2, pp. 328–340, 2019.
- [564] M. U. Niaz and M. Iqbal, "Effect of microfinance on women empowerment: A case study of pakistan," *Paradigms*, vol. 13, no. 1, pp. 52–59, 2019.

- [565] M. M. IQBAL and A. Shah, "Economic rationale of the prohibition of interest: A new aspect," *Islamic Studies*, vol. 58, no. 4, p. 503, 2019.
- [566] M. Zulkifal, M. Abbas, K. Arif-ullah, N. Humaira, and A. S. Fawad, "Thiazolidine derivatives attenuate carrageenan-induced inflammatory pain in mice," 2019.
- [567] M. Abbas, S. Alzarea, R. L. Papke, and S. Rahman, "The α 7 nicotinic acetylcholine receptor positive allosteric modulator prevents lipopolysaccharide-induced allodynia, hyperalgesia and tnf- α in the hippocampus in mice," *Pharmacological Reports*, vol. 71, no. 6, pp. 1168–1176, 2019.
- [568] F. A. Shah, G.-P. Liu, A. Kury, L. Tareq, A. Zeb, M. Abbas, T. Li, X. Yang, F. Liu, Y. Jiang et al., "Melatonin protects MCAO-induced neuronal loss via NR2A mediated prosurvival pathways," Frontiers in pharmacology, vol. 10, p. 297, 2019.
- [569] Z. Idris, M. Abbas, H. Nadeem, and A.-u. Khan, "The benzimidazole derivatives, b1 (n-[(1h-benzimidazol-2-yl) methyl]-4-methoxyaniline) and b8 (n-{4-[(1H-Benzimidazol-2-yl) Methoxy] Phenyl} acetamide) attenuate morphine-induced paradoxical pain in mice," Frontiers in neuroscience, vol. 13, 2019.
- [570] H. Bibi, H. Nadeem, M. Abbas, and M. Arif, "Synthesis and anti-nociceptive potential of isoxazole carboxamide derivatives," *BMC Chemistry*, vol. 13, no. 1, p. 6, 2019.
- [571] N. S. Malik, M. Ahmads, M. U. Minhas, and Q. Khalid, "Determination of acyclovir in rabbit plasma by high performance liquid Chromatographic (hplc) Technique," *Acta Polpniae Pharmaceutica*, vol. 76, no. 3, pp. 421–429, 2019.
- [572] S. Bashir, A. Khan, and M. Mahmood, "Evaluation of the learning environment in pharmacy institutes of pakistan," 2019.
- [573] S. Bashir, "Pharmacological importance of manilkara zapota and its bioactive constituents," Boletin Latinoamericano Y Del Caribe de Plantas Medicinales Y Aromaticas, vol. 18, no. 4, pp. 347–358, 2019.
- [574] S. Rehman, M. M. Ahmed, U. Rafique, and M. N. Khan, "A nonlinear model to assess DC/AC performance reliability of submicron SiC MESFETs," *Journal of Computa*tional Electronics, pp. 1–11, 2018.
- [575] Z. Ahmed, M. M. Ahmed, and M. B. Ihsan, "A novel differential fed high gain patch antenna using resonant slot loading," *Radioengineering*, vol. 27, no. 3, pp. 662–670, 2018.
- [576] Z. Ahmed, M. M. Ahmed, M. B. Ihsan, A. A. Chaudhary, and J. K. Arif, "Novel dual band patch antenna with gap coupled composite right/left-handed transmission line," *International Journal of Microwave and Wireless Technologies*, pp. 1–7, 2018.
- [577] M. N. Khan, U. F. Ahmed, M. M. Ahmed, and S. Rehman, "An improved model to assess temperature-dependent DC characteristics of submicron GaN HEMTs," *Journal of Computational Electronics*, vol. 17, no. 2, pp. 653–662, 2018.

- [578] M. Riaz, M. M. Ahmed, U. Rafique, and U. F. Ahmed, "Assessment of intrinsic small signal parameters of submicron SiC MESFETs," *Solid-State Electronics*, vol. 139, pp. 80–87, 2018.
- [579] U. Qazi, M. R. Ali, and A. Moqueet, "An estimation of the impact of uninterpretable power supply systems on electricity distribution utility of Pakistan," *Journal of Basic* and Applied Sciences, vol. 14, pp. 92–97, 2018.
- [580] S. M. Shah, R. Samar, and M. A. Z. Raja, "Fractional-order algorithms for tracking rayleigh fading channels," *Nonlinear Dynamics*, vol. 92, no. 3, pp. 1243–1259, 2018.
- [581] Z. Masood, K. Majeed, R. Samar, and M. A. Z. Raja, "Design of epidemic computer virus model with effect of quarantine in the presence of immunity," *Fundamenta Informaticae*, vol. 161, no. 3, pp. 249–273, 2018.
- [582] A. Yar, A. I. Bhatti, and Q. Ahmed, "First principle based control oriented model of a gasoline engine including multi-cylinder dynamics," *Control Engineering Practice*, vol. 70, pp. 63–76, 2018.
- [583] M. R. Azam, S. Fazal, M. Ullah, and A. I. Bhatti, "System-based strategies for p53 recovery," *IET Systems Biology*, vol. 12, no. 3, pp. 101–107, 2018.
- [584] A. Yar, A. I. Bhatti, and Q. Ahmed, "First principle based control oriented gasoline engine model including lumped cylinder dynamics," *Journal of Dynamic Systems*, *Measurement*, and Control, vol. 140, no. 8, pp. 1–9, 2018.
- [585] A. Jafar, A. I. Bhatti, A. S. M, and N. Ahmed, "Robust gain scheduled control algorithm for lab helicopter: An LMI based approach," *IMECH Journal of Systems and Control Engineering*, pp. 1–14, 2018.
- [586] M. T. Khan, S. I. Malik, A. I. Bhatti, S. Ali, A. S. Khan, M. T. Zeb, T. Nadeem, and S. Fazal, "Pyrazinamide-resistant mycobacterium tuberculosis isolates from Khyber Pakhtunkhwa and rpsA mutations," *Journal of Biological Regulators and Homeostatic* Agents, vol. 32, no. 3, pp. 705–709, 2018.
- [587] A. Munir, S. Azam, S. Fazal, and A. I. Bhatti, "Evaluation of the whole body physiologically based pharmacokinetic (wb-pbpk) modeling of drugs," *Journal of Theoretical Biology*, vol. 451, pp. 1–9, 2018.
- [588] A. Jafar, A. I. Bhatti, S. M. Ahmad, and N. Ahmed, "H∞ optimization-based robust decoupling control algorithm in linear parameter varying systems using hadamard weighting," *Transactions of the Institute of Measurement and Control*, pp. 1–16, 2018.
- [589] A. M. Chaudhry, A. Arshad Uppal, Y. M. Alsmadi, A. I. Bhatti, and V. I. Utkin, "Robust multi-objective control design for underground coal gasification energy conversion process," *International Journal of Control*, pp. 1–17, 2018.
- [590] U. Rafique and S. U. Din, "Beveled-shaped super-wideband planar antenna," *Turkish Journal of Electrical Engineering and Computer Sciences*, pp. 1–9, 2018.

- [591] S. Naz, R. N. B. Rais, P. A. Shah, S. Yasmin, A. Qayyum, S. Rho, and Y. Nam, "A dynamic caching strategy for CCN-based MANETs," *Computer Networks*, vol. 142, pp. 93–107.
- [592] K. A. Khaliq, S. M. Raza, O. Chughtai, A. Qayyum, and J. Pannek, "Experimental validation of an accident detection and management application in vehicular environment," *Computers & Electrical Engineering*, vol. 71, pp. 137–150, 2018.
- [593] M. Raza, N. Aslam, H. Le-Minh, S. Hussain, Y. Cao, and N. M. Khan, "A critical analysis of research potential, challenges, and future directives in industrial wireless sensor networks," *IEEE Communications Surveys & Tutorials*, vol. 20, no. 1, pp. 39–95, 2018.
- [594] M. Y. M. Mirza, N. M. Khan, A. Jamal, and R. Ramer, "Characterization of spatial reflection co-efficient for ground-to-aircraft and satellite-to-aircraft communication." Applied Computational Electromagnetics Society Journal, vol. 33, no. 1, 2018.
- [595] M. Y. Wani, M. Riaz, and N. M. Khan, "Geometrical modeling of scattering environment for highways in umbrella cell based MIMO communication systems," Wireless Personal Communications, vol. 101, no. 1, pp. 59–74, 2018.
- [596] A. Yasin, M. Ashraf, and A. Bhatti, "Fixed frequency sliding mode control of power converters for improved dynamic response in dc micro-grids," *Energies*, vol. 11, no. 10, p. 2799, 2018.
- [597] M. Rashad, M. Ashraf, A. I. Bhatti, D. M. Minhas, and B. A. Ahmed, "Mathematical modeling and stability analysis of DC microgrid using SM hysteresis controller," International Journal of Electrical Power & Energy Systems, vol. 95, pp. 507–522, 2018.
- [598] M. Rashad, U. Raoof, M. Ashraf, and B. Ashfaq Ahmed, "Proportional load sharing and stability of dc microgrid with distributed architecture using SM controller," Mathematical Problems in Engineering, vol. 2018, 2018.
- [599] M. Sajid, I. A. Taj, U. I. Bajwa, and N. I. Ratyal, "Facial asymmetry-based age group estimation: Role in recognizing age-separated face images," *Journal of forensic* sciences, 2018.
- [600] M. Asif, I. A. Taj, S. M. Ziauddin, M. B. Ahmad, and M. Tahir, "An efficient framework for prediction parameters selection in advanced video coding," *IEEE Access*, 2018.
- [601] M. Ghafoor, S. Iqbal, S. A. Tariq, and N. M. Taj, Imtiaz A Jafri, "Efficient fingerprint matching using graphical processing unit," *IET Image Processing*, vol. 12, no. 2, p. 274, 2018.
- [602] N. Ratyal, I. Taj, U. Bajwa, and M. Sajid, "Pose and expression invariant alignment based multi-view 3D face recognition." KSII Transactions on Internet & Information Systems, vol. 12, no. 10, 2018.

- [603] M. R. Mufti, H. Afzal, F. U. Rehman, Q. R. Butt, and M. I. Qureshi, "Synchronization and antisynchronization between two non-identical chua oscillators via sliding mode control," *IEEE Access*, vol. 6, pp. 45 270–45 280, 2018.
- [604] M. R. Mufti, H. Afzal, F.-u. Rehman, and N. Ahmed, "Stabilization and synchronization of 5-d memristor oscillator using sliding mode control," *Journal of the Chinese Institute of Engineers*, vol. 41, no. 8, pp. 667–677, 2018.
- [605] N. Siddique et al., "Parameter identification and hybrid synchronization in an array of coupled chaotic systems with ring connection: An adaptive integral sliding mode approach," Mathematical Problems in Engineering, vol. 2018, 2018.
- [606] F. ur Rehman, A. B. Satti, and A. A. Saleem, "Continuous stabilizing control for a class of non-holonomic systems: Brockett System Example," *Journal of Vibration Testing and System Dynamics*, vol. 2, pp. 167–172, 2018.
- [607] W. Abbasi, I. Shah et al., "Smooth super twisting sliding mode based steering control for nonholonomic systems transformable into chained form," Kybernetika, vol. 54, no. 3, pp. 476–495, 2018.
- [608] S. ud Din and F. ur Rehman, "Synchronization of a novel 4-D hyperchaotic rikitake dynamo system along with unknown parameters via adaptive integral sliding mode," Journal of Control Engineering and Applied Informatics, vol. 20, no. 1, pp. 108–118, 2018.
- [609] I. Shah and F. U. Rehman, "Smooth second order sliding mode control of a class of underactuated mechanical systems," *IEEE Access*, vol. 6, pp. 7759–7771, 2018.
- [610] M. Asif, H.-Y. Lee, U. A. Khan, K.-H. Park, and B. W. Lee, "Analysis of transient behavior of mixed high voltage dc transmission line under lightning strikes," *IEEE Access*, vol. 7, pp. 7194–7205, 2018.
- [611] R. Ara, U. A. Khan, and B. W. Bhatti, Aamer Iqbal Lee, "A highly selective protection scheme for fast fault discrimination in a meshed multi-terminal high voltage dc (mtdc) grid," 2018.
- [612] M. Khan, M. Cao, and M. Ali, "Effect of basalt fibers on mechanical properties of calcium carbonate whisker-steel fiber reinforced concrete," Construction and Building Materials, vol. 192, pp. 742–753, 2018.
- [613] M. Khan and M. Ali, "Effect of super plasticizer on the properties of medium strength concrete prepared with coconut fiber," Construction and Building Materials, vol. 182, pp. 703–715, 2018.
- [614] M. U. Farooqi and M. Ali, "Contribution of plant fibers in improving the behavior and capacity of reinforced concrete for structural applications," *Construction and Building Materials*, vol. 182, pp. 94–107, 2018.

- [615] F. Qamar, T. Thomas, and M. Ali, "Use of natural fibrous plaster for improving the out of plane lateral resistance of mortarless interlocked masonry walling," *Construction and Building Materials*, vol. 174, pp. 320–329, 2018.
- [616] M. Khan and M. Ali, "Effectiveness of hair and wave polypropylene fibers for concrete roads," *Construction and Building Materials*, vol. 166, pp. 581–591, 2018.
- [617] M. Ali, "Role of post-tensioned coconut-fibre ropes in mortar-free interlocking concrete construction during seismic loadings," KSCE Journal of Civil Engineering, vol. 22, no. 4, pp. 1336–1343, 2018.
- [618] M. Ahmed and T. Mahmood, "Elastic-displacement-based multi-modal pushover analysis in high-rise core wall buildings," *Proceedings of the Institution of Civil Engineers-Structures and Buildings*, pp. 1–22, 2018.
- [619] S. Naseer, M. S. Faiz, and S. Gul, "Use of acrylic polymer for stabilization of clayey soil," *International Journal of Scientific & Engineering Research*, vol. 9, no. 11, pp. 433–438, 2018.
- [620] S. A. Rizwan, S. Gul, and T. A. Bier, "Self-consolidating paste systems containing acacia nilotica gum powder," *ACI Materials Journal*, vol. 116, no. 1, pp. 5–14, 2019.
- [621] M. M. Khan, J. Hélie, and M. Gorokhovski, "Computational methodology for non-evaporating spray in quiescent chamber using large eddy simulation," *International Journal of Multiphase Flow*, vol. 102, pp. 102–118, 2018.
- [622] M. Ebrahem, S. Manzoor, N. A. Sheikh, M. Ali, and M. M. Khan, "Numerical investigation of transient response of a coupled two-degrees-of-freedom symmetric airfoil before flutter," *International Journal of Aeroacoustics*, vol. 17, no. 3, pp. 275–294, 2018.
- [623] S. S. Warsi, S. H. I. Jaffery, R. Ahmad, M. Khan, M. H. Agha, and L. Ali, "Development and analysis of energy consumption map for high-speed machining of Al 6061-T6 alloy," The International Journal of Advanced Manufacturing Technology, pp. 1–12, 2018.
- [624] A. Ayub, N. A. Sheikh, R. Tariq, M. M. Khan, and C. M. Invernizzi, "Exergetic optimization and comparison of combined gas turbine supercritical CO₂ power cycles," Journal of Renewable and Sustainable Energy, vol. 10, no. 4, pp. 1–23, 2018.
- [625] M. Irfan and M. Muradoglu, "A front tracking method for particle-resolved simulation of evaporation and combustion of a fuel droplet," Computers & Fluids, 2018.
- [626] M. M. Khan, N. A. Sheikh, A. Khalid, and W. A. Lughmani, "Experimental characterization of gasoline sprays under highly evaporating conditions," *Heat and Mass Transfer*, vol. 54, no. 5, pp. 1531–1543, 2018.
- [627] H. Rafiq, M. Aleem, and M. A. Islam, "On the evaluation of android malware detectors," Sukkur IBA Journal of Computing and Mathematical Sciences, vol. 2, no. 1, pp. 20–28, 2018.

- [628] H. Murtaza, M. A. Iqbal, M. A. Islam, and M. Aleem, "Content-aware reliable and energy-efficient MAC (CARE-MAC) protocol for," Ad Hoc & Sensor Wireless Networks, 2018.
- [629] M. A. Iqbal, B. Dai, M. A. Islam, M. Aleem, and N.-S. Vo, "Topology-based flow-oriented adaptive network coding-aware routing scheme for VANETs," *KSII Transactions on Internet & Information Systems*, vol. 12, no. 5, pp. 2044–2062, 2018.
- [630] M. Ibrahim, M. A. Iqbal, M. Aleem, and M. A. Islam, "SIM-cumulus: An academic cloud for the provisioning of Network-Simulation-as-a-Service (NSaaS)," *IEEE Access*, vol. 6, pp. 27313–27323, 2018.
- [631] A. Hussain, M. Aleem, A. Khan, M. A. Iqbal, and M. A. Islam, "RALBA: A computation-aware load balancing scheduler for cloud computing," Cluster Computing, pp. 1–14, 2018.
- [632] Y. N. Khalid, M. Aleem, R. Prodan, M. A. Iqbal, and M. A. Islam, "E-OSched: A load balancing scheduler for heterogeneous multicores," *The Journal of Supercomputing*, pp. 1–33, 2018.
- [633] M. A. Jaffar, M. S. Zia, M. Hussain, A. B. Siddiqui, S. Akram, and U. Jamil, "An ensemble shape gradient features descriptor based nodule detection paradigm: A novel model to augment complex diagnostic decisions assistance," *Multimedia Tools and Applications*, pp. 1–27, 2018.
- [634] S. U. R. Khan, M. A. Islam, M. Aleem, and M. A. Iqbal, "Temporal specificity based text classification for information retrieval," *Turkish Journal of Electrical Engineering & Computer Science*, 2018.
- [635] M. Raheel, S. Ayaz, and M. T. Afzal, "Evaluation of h-index, its variants and extensions based on publication age & citation intensity in civil engineering," *Scientometrics*, vol. 114, no. 3, pp. 1107–1127, 2018.
- [636] M. T. Ikram, M. T. Afzal, and N. A. Butt, "Automated citation sentiment analysis using high order n-grams: A preliminary investigation," *Turkish Journal of Electrical Engineering & Computer Sciences*, vol. 26, no. 4, pp. 1922–1932, 2018.
- [637] M. T. Khan, S. I. Malik, S. Ali, A. Sheed Khan, T. Nadeem, M. T. Zeb, N. Masood, and M. T. Afzal, "Prevalence of pyrazinamide resistance in Khyber Pakhtunkhwa, Pakistan," *Microbial Drug Resistance*, 2018.
- [638] M. Glatz, H. Maurer, and M. Tanvir Azfal, "Finding reliable information on the web should and can still be improved," *Journal of computing and information technology*, vol. 26, no. 1, pp. 1–6, 2018.
- [639] S. Haider, M. Tanvir Afzal, M. Asif, H. Maurer, A. Ahmad, and A. Abuarqoub, "Impact analysis of adverbs for sentiment classification on twitter product reviews," Concurrency and Computation: Practice and Experience, p. e4956, 2018.

- [640] F. Qayyum and M. T. Afzal, "Identification of important citations by exploiting research articles metadata and cue-terms from content," *Scientometrics*, pp. 1–23, 2018.
- [641] A. Y. Khan, A. S. Khattak, and M. T. Afzal, "Extending co-citation using sections of research articles," *Turkish Journal of Electrical Engineering & Computer Sciences*, vol. 26, no. 6, pp. 3345–3355, 2018.
- [642] R. Ahmad and M. T. Afzal, "CAD: an algorithm for citation anchors detection in research papers," *Scientometrics*, vol. 117, no. 3, pp. 1405–1423, 2018.
- [643] A. Hussain, M. Aleem, M. A. Islam, and M. A. Iqbal, "A rigorous evaluation of state-of-the-art scheduling algorithms for cloud computing," *IEEE Access*, 2018.
- [644] S. U. R. Khan, M. A. Islam, M. Aleem, M. A. Iqbal, and U. Ahmed, "Section-based focus time estimation of news articles," *IEEE Access*, vol. 6, pp. 75452–75460, 2018.
- [645] A. Kanwal and S. Fazal, "Construction and analysis of protein-protein interaction network correlated with ankylosing spondylitis," *Gene*, vol. 638, pp. 41–51, 2018.
- [646] A. Munir, S. Azam, S. Aslam, A. Mehmood, G. M. Shah, S. Amjad, M. Younis, and S. Fazal, "Computational design of small interfering rnas and small hairpin rnas to silence mutated p53 gene expressions," *Informatics in Medicine Unlocked*, vol. 12, pp. 1–5, 2018.
- [647] N. Noureen, S. Fazal, A. M. Qaider, and A. Tanvir, "Hevs: Pinpointing chromatin states through hierarchical clustering and visualization scheme," *Current Bioinfor*matics, 2018.
- [648] F. A. Larik, A. Saeed, M. Faisal, P. A. Channar, S. S. Azam, H. Ismail, E. Dilshad, and B. Mirza, "Synthesis, molecular docking and comparative efficacy of various alkyl/aryl thioureas as antibacterial, antifungal and α-amylase inhibitors," Computational biology and chemistry, vol. 77, pp. 193–198, 2018.
- [649] W. K. Kayani, B. H. Kiani, E. Dilshad, and B. Mirza, "Biotechnological approaches for artemisinin production in artemisia," World Journal of Microbiology and Biotechnology, vol. 34, no. 4, p. 54, 2018.
- [650] A. Munir, S. Hussain, and E. Dilshad, "Silver nanoparticles conjugated with neurotrophin 3 upregulate myelin gene transcription pathway," *Journal of theoretical biology*, vol. 459, pp. 111–118, 2018.
- [651] S. Hussain, J. Z. K. Khattak, M. Ismail, Q. Mansoor, and M. H. Khan, "Molecular characterization of deafness in autosomal recessive pedigrees of Khyber Pakhtunkhwa Pakistan," *Pakistan Journal of Pharmaceutical Sciences*, vol. 31, no. 1, pp. 51–56, 2018.

- [652] M. T. Khan, A. U. Rehaman, M. Junaid, S. I. Malik, and D.-Q. Wei, "Insight into novel clinical mutants of RpsA-S324F, E325K, and G341R of mycobacterium tuberculosis associated with pyrazinamide resistance," Computational and structural biotechnology journal, vol. 16, pp. 379–387, 2018.
- [653] M. Anum, S. I. Malik, and K. A. Malik, "Proteome mining for the identification of putative drug targets for human pathogen clostridium tetani," Current Bioinformatics, 2018.
- [654] A. Munir, S. I. Malik, and K. A. Malik, "De-novo ligand design against mutated huntington gene by ligand-based pharmacophore modeling approach." Current computeraided drug design, 2018.
- [655] M. Bilal, M. Sagheer, and S. Hussain, "Numerical study of magnetohydrodynamics and thermal radiation on williamson nanofluid flow over a stretching cylinder with variable thermal conductivity," *Alexandria engineering journal*, vol. 57, no. 4, pp. 3281–3289, 2018.
- [656] D.-C. Lu, M. Ramzan, M. Bilal, J. D. Chung, and U. Farooq, "A numerical investigation of 3D MHD rotating flow with binary chemical reaction, activation energy and non-fourier heat flux," Communications in Theoretical Physics, vol. 70, pp. 89–96, 2018.
- [657] D.-C. Lu, M. Ramzan, M. Bilal, J. D. Chung, and U. Farooq, "Upshot of chemical species and nonlinear thermal radiation on oldroyd-B nanofluid flow past a bidirectional stretched surface with heat generation/absorption in a porous media," Communications in Theoretical Physics, vol. 70, pp. 71–80, 2018.
- [658] T. Sajid, M. Sagheer, S. Hussain, and M. Bilal, "Darcy-forchheimer flow of Maxwell nanofluid flow with nonlinear thermal radiation and activation energy," AIP Advances, vol. 8, no. 3, p. 035102, 2018.
- [659] M. Sagheer, M. Bilal, S. Hussain, and R. N. Ahmed, "Thermally radiative rotating magneto-nanofluid flow over an exponential sheet with heat generation and viscous dissipation: A comparative study," *Communications in Theoretical Physics*, vol. 69, no. 3, p. 317, 2018.
- [660] S. Atif, S. Hussain, and M. Sagheer, "Numerical study of mhd micropolar carreau nanofluid in the presence of induced magnetic field," AIP Advances, vol. 8, no. 3, p. 035219, 2018.
- [661] M. Atlas, S. Hussain, and M. Sagheer, "Entropy generation and squeezing flow past a riga plate with cattaneo-christov heat flux," *Bulletin of the Polish Academy of Sciences: Technical Sciences*, 2018.
- [662] S. Shah, S. Hussain, and M. Sagheer, "Thermal stratification effects on mixed convective maxwell fluid flow with variable thermal conductivity and homogeneous/heterogeneous reactions," *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, vol. 40, no. 9, p. 452, 2018.

- [663] S. Hussain, H. F. Öztop, K. Mehmood, and M. E. Ali, "Control of combined convection in a nanofluid-filled lid-driven closed space via rectangular bar in the presence of magnetic field," *Journal of Thermal Analysis and Calorimetry*, pp. 1–18, 2018.
- [664] A. Kamran, S. Hussain, and M. Sagheer, "Impact of induced magnetic field on free convective flow of kerosene/water based single and multiwalled carbon nanotubes," *AIP Advances*, vol. 8, no. 10, p. 105130, 2018.
- [665] S. Hussain, S. E. Ahmed, and F. Saleem, "Impact of periodic magnetic field on entropy generation and mixed convection," *Journal of Thermophysics and Heat Transfer*, pp. 1–14, 2018.
- [666] T. Sajjad and R. Ali, "A new chaos based color image encryption algorithm using permutation substitution and boolean operation," 2018.
- [667] T. Sajjad and R. Ali, "An image encryption scheme based on s-box and chaotic logistic map," 2018.
- [668] M. Sohail Ashraf, R. Ali, and N. Hussain, "Geraghty type contractions in fuzzy bmetric spaces with application to integral equations," 2018.
- [669] M. Zia and R. Ali, "Cryptanalysis and improvement of an elliptic curve based sign-cryption scheme for firewalls," *PloS one*, vol. 13, no. 12, p. e0208857, 2018.
- [670] D. Shehwar, S. Batul, and R. Ali, "The c*-algebra valued caristi's fixed point theorem: A graphic version," *Journal of Mathematical Analysis*, vol. 9, pp. 1–9, 2018.
- [671] M. Afzal and H. Bilal, "Acoustic wave scattering from a wave-bearing cavity in a rectangular waveguide," The Journal of the Acoustical Society of America, vol. 144, no. 3, pp. 1681–1681, 2018.
- [672] B. Javed, A. K. Khan, S. Arjoon, M. Mashkoor, and A. u. Haque, "Openness to experience, ethical leadership, and innovative work behavior," *The Journal of Creative Behavior*, 2018.
- [673] M. B. Saeed, M. M. Iqbal, and K. S. Syed, "Corporate governance mechanisms and conservatism; evidence from Pakistan," NICE Research Journal of Social Sciences, vol. 11, pp. 18–38, 2018.
- [674] A. Khan and S. M. M. R. Naqvi, "The impact of internalized stigma at workplace through interlinking mechanism of self-esteem of tuberculosis patients in Pakistan," *Journal of Managerial Sciences*, vol. 9, pp. 323–342, 2018.
- [675] Q. Hayat and S. M. M. R. Naqvi, "Job strain, employee greed, and employee envy: Moderating role of self-monitoring in the banking sector of Pakistan," *Journal of Managerial Sciences*, vol. 9, pp. 221–224, 2018.
- [676] B. Javed, M. Y. A. Rawwas, S. Khandai, K. Shahid, and H. H. Tayyeb, "Ethical leadership, trust in leader and creativity: The mediated mechanism and an interacting effect," *Journal of Management & Organization*, pp. 1–18, 2018.

- [677] J. Ahmed and M. Mughal, "They earn and send; we spend: Consumption patterns of Pakistani migrant households," *International Journal of Social Economics*, vol. 45, no. 7, pp. 1092–1108, 2018.
- [678] S. Rizwan, J. Ahmed, and R. Rasiah, "The devil made me do it: Environmental factors leading to corporate financial fraud," *Journal of Managerial Sciences*, vol. 11, no. 03, pp. 321–353, 2018.
- [679] S. Fatima and M. A. Zafar, "Servant leadership and meaningfulness at work: The contingency effect of leader ethical sensitivity," *Pakistan Journal of Social Sciences*, vol. 38, no. 1, 2018.
- [680] M. Khalid, S. Bashir, A. K. Khan, and N. Abbas, "When and how abusive supervision leads to knowledge hiding behaviors: An islamic work ethics perspective," *Leadership & Organization Development Journal*, vol. 39, no. 6, pp. 794–806, 2018.
- [681] S. A. Khattak and S. Bashir, "Evaluation of union commitment in public sector organizations of pakistan: A time lagged study." Abasyn University Journal of Social Sciences, vol. 11, no. 1, 2018.
- [682] A. Majeed and S. Ahmed, "Do board audit and cultural dynamics affect firm performance? evidence from karachi meezan index," *Journal of Islamic Business and Management*, vol. 8, no. 2, 2018.
- [683] T. Ahmed, A.-u. Khan, M. Abbass, E. Rodrigues Filho, Z. U. Din, and A. Khan, "Synthesis, characterization, molecular docking, analgesic, antiplatelet and anticoagulant effects of dibenzylidene ketone derivatives," *Chemistry Central Journal*, vol. 12, no. 1, p. 134, 2018.
- [684] S. Bashir, S. Abbas, and A. Khan, "Pharmacological studies on prokinetic and laxative effects of trianthema portulacastrum linn," *International Journal of Complementary & Alternative Medicine*, vol. 11, 2018.
- [685] S. Bashir, S. Abbas, S. R. Mandukhail, and A. H. Gilani, "The airway relaxant effect of horse purslane, trianthema portulacastrum, linn.(aizoaceae), is mediated through dual blockade of muscarinic receptors and ca2+ influx," *Journal of Pharmaceutical Research International*, pp. 1–9, 2018.
- [686] M. T. Khan, M. T. Razi, S. U. Jan, M. Mukhtiar, R. Gul, A. Hussain, A. M. Hashmi, M. T. Ahmad, N. A. Shahwani, I. Rabbani et al., "Synthesis, characterization and antihypertensive activity of 2-phenyl substituted benzimidazoles." Pakistan journal of pharmaceutical sciences, vol. 31, no. 3 (Supplementary), pp. 1067–1074, 2018.
- [687] A. Khan, Z. Iqbal, A. Ullah, M. Alam, M. Akhlaq, A. Naz, and M. Sherazi, "Sintering technique: A novel approach for enhancing mechanical strength of tablets; formulation development and optimization of process variables," *Lat. Am. J. Pharm*, vol. 38, no. 3, pp. 617–28, 2019.

- [688] N. Fatima, F. Aziz, Z. Ahmad, M. A. Najeeb, M. I. Azmeer, K. S. Karimov, M. M. Ahmed, S. Basheer, R. A. Shakoor, and K. Sulaiman, "Compositional engineering of the pi-conjugated small molecular VOPcPhO: Alq₃ complex to boost humidity sensing," RSC Advances, vol. 7, no. 32, pp. 19780–19786, 2017.
- [689] Q. Zafar, N. Fatima, K. S. Karimov, M. M. Ahmed, and K. Sulaiman, "Realizing broad-bandwidth visible wavelength photodiode based on solution-processed ZnPc/PC₇₁BM dyad," Optical Materials, vol. 64, pp. 131–136, 2017.
- [690] K. S. Karimov, Z. Ahmad, N. Fatima, M. M. Ahmed, and M. Abid, "Effect of humidity on copper phthalocyanine films deposited at different gravity conditions," *Pigment & Resin Technology*, vol. 46, no. 1, pp. 64–70, 2017.
- [691] K. S. Karimov, M. H. Sayyad, M. M. Ahmed, M. N. Khan, Z. M. Karieva, S. A. Moiz, M. Shah, K. h. Zakaullah, and M. A. Turaeva, "Effect of temperature and humidity on electrical properties of organic orange dye complex films," *Eurasian Chemico-Technological Journal*, vol. 6, no. 2, pp. 145–149, 2017.
- [692] S. U. Rahman, Q. CAO, M. M. Ahmed, and H. Khalil, "Analysis of linear antenna array for minimum side lobe level, half power beamwidth, and nulls control using PSO," Journal of Microwaves, Optoelectronics and Electromagnetic Applications, vol. 16, no. 2, pp. 577–591, 2017.
- [693] N. Fatima, M. M. Ahmed, K. S. Karimov, Z. Ahmad, and F. F. Muhammad, "Optical sensors based on the NiPc CoPc composite films deposited by drop casting and under the action of centrifugal force," *Chinese Physics B*, vol. 26, no. 6, 2017.
- [694] M. M. Ahmed, M. Riaz, and U. F. Ahmed, "An improved model for the I-V characteristics of submicron SiC MESFETs by evaluating the potential distribution inside the channel," *Journal of Computational Electronics*, vol. 16, no. 3, pp. 1–12, 2017.
- [695] N. Fatima, M. M. Ahmed, and K. S. Karimov, "Effects of humidity and temperature on orange dye-based organic field effect transistors fabricated at different gravity," *Journal of Electronic Materials*, vol. 46, no. 11, pp. 6588–6594, 2017.
- [696] J. S. Malik, U. Rafique, S. A. Ali, and M. A. Khan, "Novel patch antenna for multi-band cellular, WiMAX, and WLAN applications," Turkish Journal of Electrical Engineering and Computer Sciences, vol. 25, no. 3, pp. 2005–2014, 2017.
- [697] K. Majeed, Z. Masood, R. Samar, and M. A. Z. Raja, "A genetic algorithm optimized Morlet wavelet artificial neural network to study the dynamics of nonlinear troesch's system," Applied Soft Computing, vol. 56, pp. 420–435, 2017.
- [698] S. M. Shah, R. Samar, N. M. Khan, and M. A. Z. Raja, "Design of fractional-order variants of complex LMS and NLMS algorithms for adaptive channel equalization," *Nonlinear Dynamics*, vol. 88, no. 2, pp. 839–858, 2017.

- [699] Z. Masood, K. Majeed, R. Samar, and M. A. Z. Raja, "Design of Mexican Hat Wavelet neural networks for solving Bratu type nonlinear systems," *Neurocomputing*, vol. 221, pp. 1–14, 2017.
- [700] M. A. Z. Raja, R. Samar, M. A. Manzar, and S. M. Shah, "Design of unsupervised fractional neural network model optimized with interior point algorithm for solving Bagley-Torvik equation," *Mathematics and Computers in Simulation*, vol. 132, pp. 139–158, 2017.
- [701] F. Khattak, M. Haseeb, S. Fazal, A. I. Bhatti, and M. Ullah, "Mathematical modeling of E6-p53 interactions in cervical cancer," *Asian Pacific Journal of Cancer Prevention*, vol. 18, no. 4, pp. 1057–1061, 2017.
- [702] A. A. Uppal, Y. M. Alsmadi, V. I. Utkin, A. I. Bhatti, and S. A. Khan, "Sliding mode control of underground coal gasification energy conversion process," *IEEE Transac*tions on Control Systems Technology, vol. 26, no. 2, pp. 587–598, 2017.
- [703] M. Haseeb, S. Azam, A. I. Bhatti, R. Azam, M. Ullah, and S. Fazal, "On p53 revival using system oriented drug dosage design," *Journal of Theoretical Biology*, vol. 415, pp. 53–57, 2017.
- [704] A. Yar, A. I. Bhatti, and Q. Ahmed, "First principle-based control oriented model of a gasoline engine," *Journal of Dynamic Systems, Measurement, and Control*, vol. 139, no. 5, pp. 1–14, 2017.
- [705] Q. Khan, R. Akmeliawati, A. I. Bhatti, and M. A. Khan, "Robust stabilization of underactuated nonlinear systems: A fast terminal sliding mode approach," *ISA Transactions*, vol. 66, pp. 241–248, 2017.
- [706] S. A. Tariq, S. Iqbal, M. Ghafoor, I. A. Taj, N. M. Jafri, S. Razzaq, and T. Zia, "Massively parallel palmprint identification system using GPU," Cluster Computing, pp. 1–16, 2017.
- [707] Y. A. Butt, Y. L. Sachkov, and A. I. Bhatti, "Cut locus and optimal synthesis in sub-Riemannian problem on the lie group SH(2)," *Journal of Dynamical and Control Systems*, vol. 23, no. 1, pp. 155–195, 2017.
- [708] K. A. Khaliq, A. Qayyum, and J. Pannek, "Performance analysis of proposed congestion avoiding protocol for IEEE 802.11s," International Journal of Advanced Computer Science and Applications, vol. 8, no. 2, pp. 356–369, 2017.
- [709] S. Yasmin, A. Qayyum, and R. N. B. Rais, "Cooperation in opportunistic networks: An overlay approach for destination-dependent utility-based schemes," *Arabian Journal for Science and Engineering*, vol. 42, no. 2, pp. 467–482, 2017.
- [710] S. Din, Q. Khan, F. Rehman, and R. Akmeliawanti, "A comparative experimental study of robust sliding mode control strategies for underactuated systems," *IEEE Access*, 2017.

- [711] H. Raza and N. M. Khan, "Low complexity linear channel estimation for MIMO communication systems," Wireless Personal Communications, pp. 1–14, 2017.
- [712] N. M. Khan and H. Raza, "Processing-efficient distributed adaptive RLS filtering for computationally constrained platforms," Wireless Communications and Mobile Computing, vol. 2017, 2017.
- [713] G. Ahmed and N. M. Khan, "Adaptive power-control based energy-efficient routing in wireless sensor networks," Wireless Personal Communications, vol. 94, no. 3, pp. 1297–1329, 2017.
- [714] M.-Y. M. Mirza, G. Ahmed, and N. M. Khan, "Model-based adaptive transmission power control (MATPoC) for wireless sensor networks in fading environment," *Journal of Circuits, Systems and Computers*, vol. 26, no. 09, pp. 1–34, 2017.
- [715] A. A. Awan, H. Ishtiaq, and M. Hassan, "Optimizing lining length of watercourses for increased water saving in Punjab, Pakistan," *Journal of Biodiversity and Environmental Sciences (JBES)*, vol. 10, no. 2, pp. 173–180, 2017.
- [716] I. Hassan, A. R. Ghumman, Y. Ghazaw, R. H. Abdel-Maguid, and B. Samreen, "Climate change impact on precipitation in arid areas of Pakistan," *International Journal of Water Resources and Arid Environments*, vol. 6, no. 1, pp. 80–88, 2017.
- [717] M. Ahmed, "No access fluid viscous dampers locations in reinforced-concrete core wall buildings," *Proceedings of the Institution of Civil Engineers-Structures and Buildings*, vol. 170, no. 1, pp. 33–50, 2017.
- [718] M. Ali, "Role of post-tensioned Coconut-fibre ropes in mortar-free interlocking concrete construction during seismic loadings," KSCE Journal of Civil Engineering, pp. 1–8, 2017.
- [719] T. Mehmood, P. Warnitchai, M. Ahmed, and M. I. Qureshi, "Alternative approach to compute shear amplification in high-rise reinforced concrete core wall buildings using uncoupled modal response history analysis procedure," The Structural Design of Tall and Special Buildings, vol. 26, no. 4, 2017.
- [720] J. Iqbal, Z. H. Khan, and A. Khalid, "Prospects of robotics in food industry," Food Science and Technology (Campinas), vol. 37, no. 2, pp. 159–165, 2017.
- [721] S. S. Warsi, S. H. I. Jaffery, R. Ahmad, M. Khan, L. Ali, M. H. Agha, and S. Akram, "Development of energy consumption map for orthogonal machining of Al 6061-T6 alloy," *Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture*, pp. 1–13, 2017.
- [722] A. Ashfaq, Z. H. Kamali, M. H. Agha, and H. Arshid, "Heat coupling of the pan-European vs. regional electrical grid with excess renewable energy," *Energy*, vol. 122, pp. 363–377, 2017.

- [723] M. M. Khan, J. Hélie, M. Gorokhovski, and N. A. Sheikh, "Experimental and numerical study of flash boiling in gasoline direct injection sprays," *Applied Thermal Engineering*, vol. 123, pp. 377–389, 2017.
- [724] M. M. Khan, J. Hélie, M. Gorokhovski, and N. A. Sheikh, "Air entrainment in high pressure multihole gasoline direct injection sprays," *Journal of Applied Fluid Mechan*ics, vol. 10, no. 4, pp. 1223–1234, 2017.
- [725] M. R. Bhatti, N. A. Sheikh, S. Manzoor, M. M. Khan, and M. Ali, "Numerical study of hydrogen peroxide thermal decomposition in a shock tube," *Journal of Thermal Science*, vol. 26, no. 3, pp. 235–244, 2017.
- [726] M. M. Khan and N. A. Sheikh, "Experimental characterization of high pressure gasoline direct injection sprays," *Journal of Mechanical Science and Technology*, vol. 31, no. 4, pp. 2015–2022, 2017.
- [727] M. Ahmad, M. A. Qadir, and T. Ali, "Indexing for semantic cache to reduce query matching complexity," *Journal of the National Science Foundation of Sri Lanka*, vol. 45, no. 1, 2017.
- [728] S. Khan and M. A. Qadir, "Deterministic time markov chain modeling of simultaneous multipath transmission schemes," *IEEE Access*, vol. 5, 2017.
- [729] N. Noureen, H. M. Zohaib, M. A. Qadir, and S. Fazal, "ChromBiSim: Interactive chromatin biclustering using a simple approach," *Genomics*, 2017.
- [730] R. Ahmad, M. T. Afzal, and M. A. Qadir, "Pattern analysis of citation-anchors in citing documents for accurate identification of in-text citations," *IEEE Access*, vol. 5, pp. 5819–5828, 2017.
- [731] N. Ikram, M. Qadir, and M. Afzal, "Investigating correlation between protein sequence similarity and semantic similarity using gene ontology annotations," IEEE/ACM Transactions on Computational Biology and Bioinformatics, 2017.
- [732] A. Shahid and M. T. Afzal, "Section-wise indexing and retrieval of research articles," *Cluster Computing*, pp. 1–12, 2017.
- [733] S. A. Khan, M. A. Qadir, M. A. Abbas, and M. T. Afzal, "OWL2 benchmarking for the evaluation of knowledge based systems," *PloS One*, vol. 12, no. 6, p. e0179578, 2017.
- [734] R. Habib and M. T. Afzal, "Paper recommendation using citation proximity in bibliographic coupling," *Turkish Journal of Electrical Engineering & Computer Sciences*, vol. 25, no. 4, pp. 2708–2718, 2017.
- [735] M. Imran, M. T. Afzal, and M. A. Qadir, "A comparison of feature extraction techniques for malware analysis," *Turkish Journal of Electrical Engineering & Computer Sciences*, vol. 25, no. 2, pp. 1173–1183, 2017.

- [736] M. A. Iqbal, M. Aleem, M. Ibrahim, A. Saleem, and M. A. Islam, "Amazon cloud computing platform EC2 and VANET simulations," accepted in International Journal of Ad hoc and Ubiquitous Computing (Inderscience), 2017.
- [737] M. Aleem, P. Radu, M. A. Islam, and M. A. Iqbal, "On the parallel programmability of JavaSymphony for multi-cores and clusters," accepted in International Journal of Ad hoc and Ubiquitous Computing, 2017.
- [738] S. Aurangzeb, M. Aleem, M. A. Iqbal, and M. A. Islam, "Ransomware: A survey and trends." *Journal of Information Assurance & Security*, vol. 6, no. 2, 2017.
- [739] M. Badri, M. Aleem, M. Arshad Islam, M. A. Iqbal, and M. Waqar, "Fast implementation of minimum spanning tree method and applying it to kruskal's and prim's algorithms," Sukkur IBA Journal of Computing and Mathematical Sciences, vol. 1, no. 1, pp. 58–66, 2017.
- [740] M. Aleem, A. Ishtiaq, S. H. Abbasi, and M. A. Islam, "User tracking mechanisms and counter measures," *International Journal of Applied Mathematics, Electronics and Computers*, vol. 5, no. 2, pp. 33–40, 2017.
- [741] Z. Halim, A. R. Baig, G. Abbas, and M. A. Islam, "Computational intelligence-based search of entertaining rules in the space of predator/prey games," *Journal of Multiple-Valued Logic & Soft Computing*, vol. 28, no. 6, 2017.
- [742] S. A. Khan and A. Nadeem, "Automated generation and infeasible detection of test paths for data flow testing using genetic algorithm," *Science International*, vol. 29, no. 2, pp. 311–311, 2017.
- [743] M. N. Shahwani, S. Nisar, A. Aleem, M. Panezai, S. Afridi, and S. I. Malik, "Amplification of mitochondrial DNA for detection of plasmodiumvivax in Balochistan," *The Journal of the Pakistan Medical Association*, vol. 67, no. 5, p. 677, 2017.
- [744] A. Munir, S. Azam, S. Ali, A. Mehmood, A. H. Shah et al., "Repurposing of modified alpidem and propoxyphene to cure AURKA, BCAS1, GNAS and MLH1 gene mutations in colorectal cancer," *Drug Designing*, vol. 6, no. 141, pp. 2169–0138, 2017.
- [745] F. Khattak, M. Haseeb, S. Fazal, A. I. Bhatti, and M. Ullah, "Mathematical modeling of E6-p53 interactions in cervical cancer," Asian Pacific Journal of Cancer Prevention, vol. 18, no. 4, p. 1057, 2017.
- [746] A. Saeed, P. A. Channar, F. A. Larik, F. Jabeen, U. Muqadar, S. Saeed, U. Flörke, H. Ismail, E. Dilshad, and B. Mirza, "Design, synthesis, molecular docking studies of organotin-drug derivatives as multi-target agents against antibacterial, antifungal, α-amylase, α-glucosidase and butyrylcholinesterase," *Inorganica Chimica Acta*, vol. 464, pp. 204–213, 2017.
- [747] S. Azam, A. Munir, M. S. Khan, S. Fazal, A. Mehmood *et al.*, "In-silico identification of novel resistant genes for fungal pathogen fusarium oxysporum f.sp. cubense race 4:

- Causative agent of banana vascular wilt disease," Journal Of Plant Biochemistry & Physiology, vol. 5, no. 175, p. 2, 2017.
- [748] S. Hussain, J. Z. K. Khattak, M. Ismail, Q. Mansoor, and M. H. Khan, "Molecular characterization of deafness in autosomal recessive pedigrees of Khyber Pakhtunkhwa," *Pakistan Journal of Pharmaceutical Sciences*, vol. 31, no. 1, 2017.
- [749] H. Ismail, E. Dilshad, M. T. Waheed, and B. Mirza, "Transformation of Lettuce with rol ABC Genes: Extracts show enhanced antioxidant, analgesic, anti-Inflammatory, antidepressant, and anticoagulant activities in aats," Applied Biochemistry and Biotechnology, vol. 181, no. 3, pp. 1179–1198, 2017.
- [750] S. Hussain, "Finite element solution for MHD flow of nanofluids with heat and mass transfer through a porous media with thermal radiation, viscous dissipation and chemical reaction effects," Advances in Applied Mathematics and Mechanics, vol. 9, no. 4, pp. 904–923, 2017.
- [751] Y. Mehmood, M. Sagheer, and S. Hussain, "MHD oblique stagnation point flow of nanofluid over a convective stretching surface," *Journal of Computational and Theo*retical Nanoscience, vol. 14, no. 4, pp. 1724–1734, 2017.
- [752] S. Hussain, S. Ahmad, K. Mehmood, and M. Sagheer, "Effects of inclination angle on mixed convective nanofluid flow in a double lid-driven cavity with discrete heat sources," *International Journal of Heat and Mass Transfer*, vol. 106, pp. 847–860, 2017.
- [753] Y. Mehmood, M. Sagheer, S. Hussain, and M. Bilal, "MHD stagnation point flow and heat transfer in viscoelastic fluid with cattaneo-christov heat flux model," *Neural Computing and Applications*, pp. 1–8, 2017.
- [754] M. Bilal, M. Sagheer, and S. Hussain, "Three dimensional MHD upper-convected maxwell nanofluid flow with nonlinear radiative heat flux," *Alexandria Engineering Journal*, 2017.
- [755] M. Bilal, M. Sagheer, S. Hussain, and Y. Mehmood, "MHD stagnation point flow of williamson fluid over a stretching cylinder with variable thermal conductivity and homogeneous/heterogeneous reaction," *Communications in Theoretical Physics*, vol. 67, no. 6, p. 688, 2017.
- [756] M. Bilal, S. Hussain, and M. Sagheer, "Boundary layer flow of magneto-micropolar nanofluid flow with hall and ion-slip effects using variable thermal diffusivity," *Bulletin* of the Polish Academy of Sciences Technical Sciences, vol. 65, no. 3, pp. 383–390, 2017.
- [757] K. Mehmood, S. Hussain, and M. Sagheer, "Mixed convection in alumina-water nanofluid filled lid-driven square cavity with an isothermally heated square blockage inside with magnetic field effect: Introduction," *International Journal of Heat* and Mass Transfer, vol. 109, pp. 397–409, 2017.

- [758] K. Mehmood, S. Hussain, and M. Sagheer, "Numerical simulation of MHD mixed convection in alumina—water nanofluid filled square porous cavity using KKL model: Effects of non-linear thermal radiation and inclined magnetic field," *Journal of Molecular Liquids*, vol. 238, pp. 485–498, 2017.
- [759] M. Bilal, M. Sagheer, and S. Hussain, "On MHD 3D upper convected maxwell fluid flow with thermophoretic effect using non-linear radiative heat flux," Canadian Journal of Physics, 2017.
- [760] S. Hussain, S. E. Ahmed, and T. Akbar, "Entropy generation analysis in MHD mixed convection of hybrid nanofluid in an open cavity with a horizontal channel containing an adiabatic obstacle," *International Journal of Heat and Mass Transfer*, vol. 114, pp. 1054–1066, 2017.
- [761] S. Hussain, H. F. Öztop, M. Jamal, and N. A. Hamdeh, "Double diffusive nanofluid flow in a duct with cavity heated from below," *International Journal of Mechanical Sciences*, vol. 131, pp. 535–545, 2017.
- [762] A. Kamran, S. Hussain, M. Sagheer, and N. Akmal, "A numerical study of magnetohydrodynamics flow in casson nanofluid combined with joule heating and slip boundary conditions," *Results in Physics*, vol. 7, pp. 3037–3048, 2017.
- [763] J. B. Lawrie and M. Afzal, "Acoustic scattering in a waveguide with a height discontinuity bridged by a membrane: A tailored galerkin approach," *Journal of Engineering Mathematics*, vol. 105, no. 1, pp. 99–115, 2017.
- [764] J. Ahmed, "Does external debt lead to growth in the presence of quality institutions?" World Economy Brief, vol. 7, no. 22, pp. 1–5, 2017.
- [765] N. Kanwal, M. S. Zafar, and S. Bashir, "The combined effects of managerial control, resource commitment, and top management support on the successful delivery of information systems projects," *International Journal of Project Management*, vol. 35, no. 8, pp. 1459–1465, 2017.
- [766] S. Shaheen, S. Bashir, and A. K. Khan, "Examining organizational cronyism as an antecedent of workplace deviance in public sector organizations," *Public Personnel Management*, vol. 46, no. 3, pp. 308–323, 2017.
- [767] M. M. Hassan, S. Bashir, and S. M. Abbas, "The impact of project managers personality on project success in NGOs: The mediating role of transformational leadership," *Project Management Journal*, vol. 48, no. 2, pp. 74–87, 2017.
- [768] B. Javed, A. A. Khan, S. Bashir, and S. Arjoon, "Impact of ethical leadership on creativity: the role of psychological empowerment," *Current Issues in Tourism*, vol. 20, no. 8, pp. 839–851, 2017.
- [769] B. Javed, S. Bashir, M. Y. A. Rawwas, and S. Arjoon, "Islamic work ethic, innovative work behaviour, and adaptive performance: the mediating mechanism and an interacting effect," *Current Issues in Tourism*, vol. 20, no. 6, pp. 647–663, 2017.

- [770] I. Rasool, A. Rajput *et al.*, "The impact of perceived internal corporate social responsibility on organizational citizenship behavior: A micro-perspective analysis," *Business & Economic Review*, vol. 9, no. 1, pp. 181–201, 2017.
- [771] A. U. Shah and M. I. Khan, "The mediating role of overall justice in justice employees attitudes relationship: A test of five factors mode," *Journal of Managerial Science*, vol. 10, no. 3, pp. 27–48, 2017.
- [772] I. Ahmad and M. A. Zafar, "Impact of psychological contract fulfillment on organizational citizenship behavior: Mediating role of perceived organizational support," International Journal of Contemporary Hospitality Management, vol. 30, no. 2, pp. 1001–1015, 2017.
- [773] L. Saqib and M. A. Zafar, "A critical analysis of shari'ah issues in the contemporary state bank guidelines on islamic agriculture finance (a study from Pakistan)," *Islamic Studies*, vol. 54, no. 1-2, 2017.
- [774] B. Javed, S. M. M. R. Naqvi, A. K. Khan, S. Arjoon, and H. H. Tayyeb, "Impact of inclusive leadership on innovative work behavior: The role of psychological safety," *Journal of Management & Organization*, pp. 1–20, 2017.
- [775] B. Shabbir and S. M. M. Raza Naqvi, "Impact of workload and job complexity on employee job performance with the moderating role of social support and mediating role of job stress: A study of travel agencies in Rawalpindi, Islamabad and AJK," *Journal of Accounting and Marketing*, vol. 6, no. 1, 2017.
- [776] Y. A. Butt, Y. L. Sachkov, and A. I. Bhatti, "Maxwell strata and conjugate points in the sub-Riemannian problem on the lie group SH(2)," *Journal of Dynamical and Control Systems*, vol. 22, no. 4, pp. 747–770, 2016.
- [777] M. Ghafoor, I. A. Taj, and M. N. Jafri, "Fingerprint frequency normalisation and enhancement using two-dimensional short-time fourier transform analysis," *IET Computer Vision*, vol. 10, no. 8, pp. 806–816, 2016.
- [778] G. Murtaza, A. I. Bhatti, and Q. Ahmed, "Control-oriented model of atkinson cycle engine with variable intake valve actuation," *Journal of Dynamic Systems, Measure*ment, and Control, vol. 138, no. 6, pp. 1–9, 2016.
- [779] I. Khan, A. I. Bhatti, A. Arshad, and Q. Khan, "Robustness and performance parameterization of smooth second order sliding mode control," *International Journal of Control, Automation and Systems*, vol. 14, no. 3, pp. 681–690, 2016.
- [780] S. U. Ali, R. Samar, M. Z. Shah, A. I. Bhatti, K. Munawar, and U. M. Al-Sggaf, "Lateral guidance and control of UAVs using second-order sliding modes," *Aerospace Science and Technology*, vol. 49, pp. 88–100, 2016.
- [781] M. A. Z. Raja, R. Samar, E. S. Alaidarous, and E. Shivanian, "Bio-inspired computing platform for reliable solution of Bratu-type equations arising in the modeling of

- electrically conducting solids," *Applied Mathematical Modelling*, vol. 40, no. 11, pp. 5964–5977, 2016.
- [782] S. J. Nawaz, M. I. Tiwana, M. Patwary, N. M. Khan, M. I. Tiwana, and A. H. Haseeb, "GA based sensing of sparse multipath channels with superimposed training sequence," *Elektronika ir Elektrotechnika*, vol. 22, no. 1, pp. 87–91, 2016.
- [783] S. M. Shah, R. Samar, N. M. Khan, and M. A. Z. Raja, "Fractional-order adaptive signal processing strategies for active noise control systems," *Nonlinear Dynamics*, vol. 85, no. 3, pp. 1363–1376, 2016.
- [784] M. Y. Wani, M. Riaz, and N. M. Khan, "Modeling and characterization of MIMO mobile-to-mobile communication channels using elliptical scattering geometry," Wireless Personal Communications, vol. 91, no. 2, pp. 509–524, 2016.
- [785] M. S. Khan and N. M. Khan, "Low complexity signed response based sybil attack detection mechanism in wireless sensor networks," *Journal of Sensors*, vol. 2016, 2016.
- [786] T. Ahmed and N. M. Khan, "Direct radio frequency sampling methodology for multiple signals in an energy-sparse spectrum," *Turkish Journal of Electrical Engineering & Computer Sciences*, vol. 24, no. 6, pp. 4637–4647, 2016.
- [787] M. Riaz, M. Rehan, and M. Ashraf, "Synchronization of nonlinear master–slave systems under input delay and slope-restricted input nonlinearity," *Complexity*, vol. 21, no. S1, pp. 220–233, 2016.
- [788] S. J. Nawaz, N. M. Khan, and R. Ramer, "3-D spatial spread quantifiers for multipath fading wireless channels," *IEEE Wireless Communications Letters*, vol. 5, no. 5, pp. 484–487, 2016.
- [789] M. Sajid, I. A. Taj, U. I. Bajwa, and N. I. Ratyal, "The role of facial asymmetry in recognizing age-separated face images," *Computers & Electrical Engineering*, vol. 54, pp. 255–270, 2016.
- [790] M. Asif, I. A. Taj, S. M. Ziauddin, M. B. Ahmad, and A. Raza, "An efficient inter prediction mode selection scheme for advanced video coding based on motion homogeneity and residual complexity," *IEEJ Transactions on Electrical and Electronic Engineering*, vol. 11, no. 6, pp. 760–767, 2016.
- [791] W. Abbasi et al., "Adaptive integral sliding mode stabilization of nonholonomic drift-free systems," Mathematical Problems in Engineering, vol. 2016, 2016.
- [792] Q. Khan, R. Akmeliawati *et al.*, "Robust control of underactuated systems: Higher order integral sliding mode approach," *Mathematical Problems in Engineering*, vol. 2016, 2016.
- [793] K. A. Khaliq, A. Qayyum, and J. Pannek, "Synergies of advanced technologies and role of VANET in logistics and transportation," *International Journal of Advanced Computer Science and Applications*, vol. 7, no. 11, pp. 359–369, 2016.

- [794] S. Yasmin, R. N. Bin Rais, and A. Qayyum, "Resource aware routing in heterogeneous opportunistic networks," *International Journal of Distributed Sensor Networks*, vol. 12, no. 1, p. 2907980, 2016.
- [795] K. A. Khaliq, A. Qayyum, J. Pannek et al., "Wireless body area networks (WBAN): Architecture, applications and MAC protocols," Abstract of Emerging Trends in Scientific Research, vol. 6, 2016.
- [796] M. Riaz, M. M. Ahmed, and U. Munir, "An improved model for current voltage characteristics of submicron SiC MESFETs," *Solid-State Electronics*, vol. 121, pp. 54–61, 2016.
- [797] M. Ahmed, "No access multiple plastic hinge concept for high-rise reinforced-concrete core wall buildings," *Proceedings of the Institution of Civil Engineers-Structures and Buildings*, vol. 169, no. 9, pp. 688–701, 2016.
- [798] R. Farooq, W. Ahmad, H. N. Hashmi, and Z. Saeed, "Computation of momentum transfer coefficient and conveyance capacity in asymmetric compound channel," *Arabian Journal for Science and Engineering*, vol. 41, no. 10, pp. 4225–4234, 2016.
- [799] M. Khan and M. Ali, "Use of glass and nylon fibers in concrete for controlling early age micro cracking in bridge decks," *Construction and Building Materials*, vol. 125, pp. 800–808, 2016.
- [800] M. Ali, "Use of coconut fibre reinforced concrete and coconut-fibre ropes for seismic-resistant construction," *Materiales de Construcción*, vol. 66, no. 321, p. e073, 2016.
- [801] I. Hassan, "Rainwater harvesting-an alternative water supply in the future for Pakistan," *Journal of Biodiversity and Environmental Sciences (JBES)*, vol. 8, no. 6, pp. 213–222, 2016.
- [802] I. Hassan, A. R. Ghumman, and H. N. Hashmi, "Global warming and temperature changes for Saudi Arabia," *Journal of Biodiversity and Environmental Sciences* (*JBES*), vol. 8, no. 1, pp. 179–191, 2016.
- [803] A. Khalid, P. Kirisci, Z. Ghrairi, K.-D. Thoben, and J. Pannek, "A methodology to develop collaborative robotic cyber physical systems for production environments," *Logistics Research*, vol. 9, no. 23, pp. 1–15, 2016.
- [804] M. Umar, N. Khan, M. H. Agha, and M. Abbas, "SAP-ERP implementation: Change management model using qualitative approach," *International Journal of Computer Science and Network Security (IJCSNS)*, vol. 16, no. 6, pp. 9–13, 2016.
- [805] L. A. K. Rayyan Azam Khan, Z. K. Farzan Majeed Noori, and A. Majeed, "Design and simulation of a sine wave inverter with PID control for nonlinear load applications," *International Journal of Innovation and Scientific Research*, vol. 26, no. 2, pp. 672– 683, 2016.

- [806] R. A. K. Farzan Majeed Noori, Liaquat Ali Khan, "Cost effective recognition and classification of moving objects using simulink," *Journal of Scientific and Engineering Research*, vol. 3, no. 5, pp. 174–182, 2016.
- [807] M. M. Khan and N. A. Sheikh, "Identification and characterization of coherent structures in gasoline injector nozzle flow using proper orthogonal decomposition," *Journal of Mechanical Science and Technology*, vol. 30, no. 8, pp. 3673–3680, 2016.
- [808] N. A. Sheikh, S. Manzoor, M. M. Khan, and M. Ali, "Hydrodynamic description of a vibrofluidized granular bed driven at high frequency," *The European Physical Journal Applied Physics*, vol. 75, no. 3, p. 31101, 2016.
- [809] U. Farooq, A. Nongaillard, Y. Ouzrout, and M. A. Qadir, "A feature-based reputation model for product evaluation," *International Journal of Information Technology & Decision Making*, vol. 15, no. 06, pp. 1521–1553, 2016.
- [810] U. Farooq, A. Nongaillard, Y. Ouzrout, and M. A. Qadir, "A multi source product reputation model," *Computers in Industry*, vol. 83, pp. 55–67, 2016.
- [811] K. Shaukat, T. Tariq, A. Junaid, M. A. Ahsan, K. Mehmood, and U. Shaukat, "KSD an efficient algorithm for association rule mining," *International Journal of Computer Science and Information Security*, vol. 14, no. 5, p. 351, 2016.
- [812] S. Ayaz and M. T. Afzal, "Identification of conversion factor for completing-h index for the field of mathematics," *Scientometrics*, vol. 109, no. 3, pp. 1511–1524, 2016.
- [813] M. Imran, M. T. Afzal, and M. A. Qadir, "Malware classification using dynamic features and hidden markov model," *Journal of Intelligent & Fuzzy Systems*, vol. 31, no. 2, pp. 837–847, 2016.
- [814] N. Sajid, M. T. Afzal, and M. Qadir, "Multi-label classification of computer science documents using fuzzy logic," *Journal of the National Science Foundation of Sri Lanka*, vol. 44, no. 2, 2016.
- [815] M. T. Ikram, N. A. Butt, and M. T. Afzal, "Open source software adoption evaluation through feature level sentiment analysis using Twitter data," *Turkish Journal of Electrical Engineering & Computer Sciences*, vol. 24, no. 5, pp. 4481–4496, 2016.
- [816] M. Aleem, M. A. Islam, and M. A. Iqbal, "A comparative study of heterogeneous processor simulators," *International Journal of Computer Applications*, vol. 148, no. 12, 2016.
- [817] A. Javed, B. Qamar, M. Jameel, A. Shafi, and B. Carpenter, "Towards scalable Java HPC with hybrid and native communication devices in MPJ express," *International Journal of Parallel Programming*, vol. 44, no. 6, pp. 1142–1172, 2016.
- [818] R. Ul-Islam, S. A. Haider, T. Abbas, and M. Ikram, "Matter-wave teleportation via cavity-field trans-pads," *Laser Physics Letters*, vol. 13, no. 10, p. 105204, 2016.

- [819] S. Ahmed and A. Nadeem, "A mobile agent based communication protocol to optimize message delivery cost," *Journal of Systems and Software*, vol. 121, pp. 40–48, 2016.
- [820] R. Bano, M. Ismail, A. Nadeem, M. H. Khan, and H. Rashid, "Potential risk factors for breast cancer in Pakistani women," *Asian Pacific Journal of Cancer Prevention*, vol. 17, no. 9, pp. 4307–4312, 2016.
- [821] S. A. Khan and A. Nadeem, "An empirical investigation on test data generation for coupling based integration testing," *Science International*, vol. 28, no. 1, 2016.
- [822] N. Farah, A. Mehdi, S. I. Soomro, N. I. Soomro, R. Tareb, N. Desmasures, J. P. Vernoux, S. M. Bakhtiar, and M. Imran, "Draft genome sequence of enterococcus mundtii QAUEM2808, isolated from dahi, a fermented milk product," Genome announcements, vol. 4, no. 5, pp. e00 995–16, 2016.
- [823] R. Tabassum, M. Haseeb, and S. Fazal, "Structure prediction of outer membrane protease protein of salmonella typhimurium using computational techniques," *International Journal Bioautomation*, vol. 20, no. 1, 2016.
- [824] N. Farah, A. Mehdi, S. I. Soomro, N. I. Soomro, R. Tareb, N. Desmasures, J. P. Vernoux, S. M. Bakhtiar, and M. Imran, "Implementation of mathematical models for HCV infection," *Journal of Applied Environmental and Biological Sciences*, vol. 6, no. 2S, pp. 109–113, 2016.
- [825] H. A. Butt and S. M. Bakhtiar, "Identification and classification of bacterial autotransporters," *Jurnal Teknologi*, vol. 78, no. 4-3, pp. 47–51, 2016.
- [826] H. Ismail, E. Dilshad, M. T. Waheed, M. Sajid, W. K. Kayani, and B. Mirza, "Transformation of Lactuca sativa L. with rol C gene results in increased antioxidant potential and enhanced analgesic, anti-inflammatory and antidepressant activities in vivo," 3 Biotech, vol. 6, no. 2, p. 215, 2016.
- [827] W. K. Kayani, E. Dilshad, T. Ahmed, H. Ismail, and B. Mirza, "Evaluation of Ajuga bracteosa for antioxidant, anti-inflammatory, analgesic, antidepressant and anticoagulant activities," *BMC Complementary and Alternative Medicine*, vol. 16, no. 1, p. 375, 2016.
- [828] S. F. Ahmad, Z. Anwar, S. Hussain, M. Jehangir, I. Jehangir, A. Jamal, J. Z. K. Khattak, and A. Ali Khan, "A detailed report on the specific area based percentage and diagnostic methods of hepatitis C in Khyber Pakhtunkhwa, Pakistan," *Molecular and Biochemical Diagnosis (Journal)*, vol. 2, no. 1, pp. 51–64, 2016.
- [829] K. M. Haroon, S. Hussain, R. Bano, H. Jamshed-Ul-Hassan, and U. R. M. Aadil, "Associations of most prevalent risk factors with lung cancer and their impact on survival length," Asian Pacific Journal of Cancer Prevention, vol. 17, no. S3, pp. 65–70, 2016.

- [830] A. Shaheen, S. Hussain, and S. Nadeem, "Physiological flow of jeffrey six constant fluid model due to ciliary motion," *Communications in Theoretical Physics*, vol. 66, no. 6, p. 701, 2016.
- [831] S. Kanwal and R. Ali, "A cryptosystem with noncommutative platform groups," Neural Computing and Applications, pp. 1–6, 2016.
- [832] S. Inam and R. Ali, "A new ElGamal-like cryptosystem based on matrices over groupring," *Neural Computing and Applications*, pp. 1–5, 2016.
- [833] M. Afzal, R. Nawaz, and A. Ullah, "Attenuation of dissipative device involving coupled wave scattering and change in material properties," *Applied Mathematics and Computation*, vol. 290, pp. 154–163, 2016.
- [834] A. R. Kashif, M. Shoaib, and M. A. Latif, "Applications and derivation of Ostrowski type inequalities for n-times differentiable functions for some efficint quadrature rules," *Science International*, vol. 28, no. 3, 2016.
- [835] A. R. Kashif, M. Shoaib, and M. A. Latif, "Improved version of perturbed Ostrowski type inequalities for n-times differentiable mappings with three-step kernel and its application," *Journal of Nonlinear Sciences and Applications*, vol. 9, 2016.
- [836] E. Karapinar, R. Ali, T. Kamran, and M. U. Ali, "Generalized multivalued rational type contractions," *Journal of Advanced Mathematical Studies*, vol. 9, no. 6, pp. 26–36, 2016.
- [837] T. Kamran, M. Postolache, A. Ghiura, S. Batul, and R. Ali, "The banach contraction principle in C*-algebra-valued b-metric spaces with application," Fixed Point Theory and Applications, vol. 2016, no. 1, 2016.
- [838] S. Nadeem, A. Munim, A. Shaheen, and S. Hussain, "Physiological flow of Carreau fluid due to ciliary motion," *AIP Advances*, vol. 6, no. 3, p. 035125, 2016.
- [839] A. Akgul, S. Hussain, and I. Pehlivan, "A new three-dimensional chaotic system, its dynamical analysis and electronic circuit applications," *Optik-International Journal* for Light and Electron Optics, vol. 127, no. 18, pp. 7062–7071, 2016.
- [840] T. Hussain, S. Hussain, and T. Hayat, "Impact of double stratification and magnetic field in mixed convective radiative flow of maxwell nanofluid," *Journal of Molecular Liquids*, vol. 220, pp. 870–878, 2016.
- [841] S. Hussain, K. Mehmood, and M. Sagheer, "MHD mixed convection and entropy generation of water—alumina nanofluid flow in a double lid driven cavity with discrete heating," *Journal of Magnetism and Magnetic Materials*, vol. 419, pp. 140–155, 2016.
- [842] K. Mehmood, S. Hussain, and M. Sagheer, "Mixed convection flow with non-uniform heat source/sink in a doubly stratified magnetonanofluid," *AIP Advances*, vol. 6, no. 6, p. 065126, 2016.

- [843] S. Shah, S. Hussain, and M. Sagheer, "MHD effects and heat transfer for the UCM fluid along with joule heating and thermal radiation using cattaneo-christov heat flux model," *AIP Advances*, vol. 6, no. 8, p. 085103, 2016.
- [844] S. T. Hussain, Z. H. Khan, S. Nadeem et al., "Water driven flow of carbon nanotubes in a rotating channel," *Journal of Molecular Liquids*, vol. 214, pp. 136–144, 2016.
- [845] A. Noor, S. Bashir, and V. A. Earnshaw, "Bullying, internalized hepatitis (Hepatitis C virus) stigma, and self-esteem: Does spirituality curtail the relationship in the workplace," *Journal of Health Psychology*, vol. 21, no. 9, pp. 1860–1869, 2016.
- [846] M. H. Khan, A. Fraz, and A. Hassan, "The diversification puzzle: The role of asymmetric information and insider trading in Pakistan," *The Lahore Journal of Economics*, vol. 21, no. 2, pp. 97–119, 2016.
- [847] A. Fraz and A. Hassan, "Testing information efficiency using random walk model: Empirical evidence from Karachi stock exchange," *Journal of Managerial Sciences*, vol. 10, no. 2, pp. 249–266, 2016.
- [848] L. Saqib and M. A. Zafar, "A realistic approach to the concept of ijarah (leasing) in islamic finance and its possible role in the development of agricultural sector in Pakistan," *Hamdard Islamicus*, vol. 2, no. 3, 2016.
- [849] L. S. Behar-Horenstein, N. Isaac, C. N. Southwell, M. E. Hudson-Vassell, L. Niu, M. Pratto, K. W. Roberts, R. J. Wingfield, J. D. Wolfgang, and M. A. Zafar, "Promoting academic socialization through service learning experiences," *International Journal of Teaching and Learning in Higher Education*, vol. 28, no. 2, pp. 158–167, 2016.
- [850] I. Ahmed, M. A. Zafar, K. Shahzad, and K. Khan, "Understanding the concept of Corporate Social Responsibility (CSR): Attributions from islamic perspective," *Journal of Islamic Business and Management*, vol. 6, no. 2, pp. 135–152, 2016.
- [851] Z. Riaz and M. I. Khan, "Impact of service failure severity and agreeableness on consumer switchover intention: Mediating role of consumer forgiveness," *Asia Pacific Journal of Marketing and Logistics*, vol. 28, no. 3, pp. 420–434, 2016.
- [852] J. K. Khattak, M. R. Naqvi, and S. Muhammad, "Impact of consumer beliefs on beef buying intention in Pakistan: An application of the theory of planned behavior," *Abasyn University Journal of Social Sciences*, vol. 9, no. 2, pp. 495–508, 2016.
- [853] M. A. Z. Raja, R. Samar, T. Haroon, and S. M. Shah, "Unsupervised neural network model optimized with evolutionary computations for solving variants of nonlinear MHD Jeffery-Hamel problem," Applied Mathematics and Mechanics, vol. 36, no. 12, pp. 1611–1638, 2015.
- [854] M. A. Z. Raja, J. A. Khan, A. M. Siddiqui, D. Behloul, T. Haroon, and R. Samar, "Exactly satisfying initial conditions neural network models for numerical treatment of first Painlevé equation," Applied Soft Computing, vol. 26, pp. 244–256, 2015.

- [855] M. A. Z. Raja, J. A. Khan, S. M. Shah, R. Samar, and D. Behloul, "Comparison of three unsupervised neural network models for first Painlevé Transcendent," *Neural Computing and Applications*, vol. 26, no. 5, pp. 1055–1071, 2015.
- [856] M. A. Z. Raja, M. A. Manzar, and R. Samar, "An efficient computational intelligence approach for solving fractional order riccati equations using ANN and SQP," Applied Mathematical Modelling, vol. 39, no. 10, pp. 3075–3093, 2015.
- [857] M. Asad, A. I. Bhatti, S. Iqbal, and Y. Asfia, "A smooth integral sliding mode controller and disturbance estimator design," *International Journal of Control, Automation and Systems*, vol. 13, no. 6, pp. 1326–1336, 2015.
- [858] A. A. Uppal, A. I. Bhatti, E. Aamir, R. Samar, and S. A. Khan, "Optimization and control of one dimensional packed bed model of underground coal gasification," *Journal of Process Control*, vol. 35, pp. 11–20, 2015.
- [859] M. Z. Shah, R. Samar, and A. I. Bhatti, "Guidance of air vehicles: A sliding mode approach," *IEEE Transactions on Control Systems Technology*, vol. 23, no. 1, pp. 231–244, 2015.
- [860] M. Z. Shah, R. Samar, and A. I. Bhatti, "Lateral track control of UAVs using the sliding mode approach: from design to flight testing," *Transactions of the Institute of Measurement and Control*, vol. 37, no. 4, pp. 457–474, 2015.
- [861] K. A. Khaliq, S. Hussain, A. Qayyum, and J. Pannek, "Novel data link layer encoding scheme for multi-hop wireless mesh network," *Procedia Computer Science*, vol. 52, pp. 665–669, 2015.
- [862] I. H. Syed and N. M. Khan, "MIMO–OFDM communication system with opportunistic diversity-order selection and KF-based channel estimation," Wireless Personal Communications, vol. 84, no. 1, pp. 587–603, 2015.
- [863] S. J. Nawaz, M. Riaz, N. M. Khan, and S. Wyne, "Temporal analysis of a 3D ellipsoid channel model for the vehicle-to-vehicle communication environments," Wireless Personal Communications, vol. 82, no. 3, pp. 1337–1350, 2015.
- [864] S. J. Nawaz, N. M. Khan, M. I. Tiwana, N. Hassan, and S. I. Shah, "Airborne internet access through submarine optical fiber cables," *IEEE Transactions on Aerospace and Electronic Systems*, vol. 51, no. 1, pp. 167–177, 2015.
- [865] M. Riaz, N. M. Khan, and S. J. Nawaz, "A generalized 3-D scattering channel model for spatiotemporal statistics in mobile-to-mobile communication environment," *IEEE Transactions on Vehicular Technology*, vol. 64, no. 10, pp. 4399–4410, 2015.
- [866] S. A. Moiz, H. Nasir, A. M. Nahhas, K. S. Karimov, and M. M. Ahmed, "Improved electrical response of MIS diode with disperse orange-25 as insulator deposited by centrifugal process," Advances in Applied Science Research, vol. 6, no. 5, pp. 16–25, 2015.

- [867] K. Karimov, M. M. Ahmed, F. Noshin, M. Saleem, M. Mahroof-Tahir, S. A. Moiz, K. M. Akhmedov, M. Zahid, S. Z. Abbas, and A. Rashid, "Nickel phthalocyanine based organic photo transistor: effect of semiconductor film thickness," *The European Physical Journal Applied Physics*, vol. 72, no. 2, p. 20202, 2015.
- [868] N. I. Ratyal, I. A. Taj, U. I. Bajwa, and M. Sajid, "3D face recognition based on pose and expression invariant alignment," *Computers & Electrical Engineering*, vol. 46, pp. 241–255, 2015.
- [869] M. Asif, I. A. Taj, S. M. Ziauddin, M. B. Ahmad, and M. Tahir, "A hybrid scheme based on pipelining and multitasking in mobile application processors for advanced video coding," *Scientific Programming*, vol. 2015, p. 22, 2015.
- [870] I. Hassan and A. R. Ghumman, "Application of civil engineering softwares for down-scaling GCM results," *International Invention Journal of Engineering Science and Technology*, vol. 2, no. 1, pp. 1–9, 2015.
- [871] M. Ahmed, S. Tayyaba, and M. W. Ashraf, "Effect of buckling restrained braces locations on seismic responses of high-rise RC core wall buildings," Shock and Vibration, vol. 2016, 2015.
- [872] F. Qamar and M. Ali, "Modification of traditional supporting steelwork system for non-standard structures," *Engineering Structures*, vol. 96, pp. 153–159, 2015.
- [873] R. D. Evans, M. Rafique, M. Agha *et al.*, "Exploring the required success factors for developing absorptive capacity in knowledge intensive organisations," *The International Technology Management Review*, vol. 5, no. 3, pp. 125–134, 2015.
- [874] M. Rafique, R. D. Evans, M. T. Nawaz, and M. H. Agha, "Should organisations compete or collaborate when absorbing new external knowledge?" *International Journal of Advanced Corporate Learning*, vol. 8, no. 3, pp. 4–10, 2015.
- [875] W. Rehmat, I. Aaltio, M. H. Agha, and H. R. Khan, "Is training effective? Evaluating training effectiveness in call centers," *EJBO: Electronic Journal of Business Ethics and Organization Studies*, vol. 20, no. 1, 2015.
- [876] S. Khan and M. A. Qadir, "Inter-path OOS packets differentiation based congestion control for simultaneous multipath transmission," *International Arab Journal of Information Technology*, 2015.
- [877] K. Shaukat, N. Masood, S. Mehreen, and U. Azmeen, "Dengue fever prediction: A data mining problem," *Journal of Data Mining in Genomics & Proteomics*, vol. 2015, 2015.
- [878] A. Shahid, M. T. Afzal, and M. A. Qadir, "Lessons learned: The complexity of accurate identification of in-text citations." *The International Arab Journal of Information Technology (IAJIT)*, vol. 12, no. 5, pp. 481–488, 2015.
- [879] A. Hussain, S. Sattar, and M. T. Afzal, "Literature review on feature identification in sentiment analysis," *International Journal of Computer Applications*, vol. 132, no. 3, pp. 22–27, 2015.

- [880] S. Ur Rehman and A. Nadeem, "An approach to model based testing of multiagent systems," *The Scientific World Journal*, vol. 2015, 2015.
- [881] A. Munir, S. Azam, and S. Fazal, "Repositioning of methotrexate to cure mutations of DYR, TYMS and PURA Gene, Bleomycin in the treatment of mutant DNA, TOPa, POLa, and RIR genes," Merit Research Journal of Medicine and Medical Sciences, vol. 3, p. 7, 2015.
- [882] M. Nisar, N. Noureen, S. Fazal, and M. A. Qadir, "MCaVoH: A toolkit for mining, classification and visualization of human microbiota," *Journal of Microbiological Methods*, vol. 117, pp. 28–35, 2015.
- [883] M. S. Khan and S. Fazal, "Advanced modelling and functional characterization of B2 bradykinin receptor," *International Journal Bioautomation*, vol. 19, no. 2, 2015.
- [884] N. Noureen, M. Touseef, S. Fazal, and M. A. Qadir, "ChromClust: A semi-supervised chromatin clustering toolkit for mining histone modifications interplay," *Genomics*, vol. 106, no. 6, pp. 355–359, 2015.
- [885] S. M. B. Shifa Tariq Ashraf, "Exploring the protein interaction related to hepatitus C virus," *NUST Journal of Natural Sciences*, vol. 3, no. 1, pp. 13–18, 2015.
- [886] M. B. Amjad Ali and V. Azevedo, "Autism Spectrum Disorders (ASD): From diagnosis to management," *Journal of Molecular and Genetic Medicine*, 2015.
- [887] S. M. Bakhtiar, A. Ali, and D. Barh, "Epigenetics in head and neck cancer," Cancer Epigenetics: Risk Assessment, Diagnosis, Treatment, and Prognosis, pp. 751–769, 2015.
- [888] M. Haseeb and S. Hussain, "Pharmacophore development for anti-lung cancer drugs," Asian Pacific Journal of Cancer Prevention, vol. 16, no. 18, pp. 8307–8311, 2015.
- [889] M. T. Muhammad Bilal, H. S. Khan, and H. Tariq Zeb, "Antimicrobial activity of ethanol and ethyl acetate extracts of roots adiantum capillus-veneris," *Journal of Rashid Latif Medical College*, vol. 4, no. 1, pp. 39–44, 2015.
- [890] S. M. B. Shifa Tariq Ashraf, "Exploring the protein interaction related to hepatitus," NUST Journal of Natural Sciences, vol. 3, no. 1, pp. 13–18, 2015.
- [891] A. U. Tariq, M. H. Khan, S. Hussain, R. Bano, and A. Navid, "In silico characterization of genetic alterations associated with mal de meleda," *International Journal of Sciences: Basic and Applied Research*, vol. 19, no. 2, pp. 65–76, 2015.
- [892] T. Kamran *et al.*, "C*-valued G-contractions and fixed points," *Journal of Inequalities* and Applications, vol. 2015, no. 1, p. 304, 2015.
- [893] M. Ramzan and M. Bilal, "Time dependent MHD nano-second grade fluid flow induced by permeable vertical sheet with mixed convection and thermal radiation," *PloS One*, vol. 10, no. 5, p. e0124929, 2015.

- [894] T. Kamran, R. Ali, and S. Sultan, "Generalized multivalued integral type weak contractions," *Journal of Advanced Mathematical Studies*, vol. 8, no. 1, pp. 115–120, 2015.
- [895] S. Batul and T. Kamran, "C*-valued contractive type mapping," Journal of Advanced Mathematical Studies, vol. 2015, no. 142, pp. 1–9, 2015.
- [896] S. Hussain, Z. Abidin, and C. G. Petrov, "Time discretization scheme for the solutions of the chen system," *Journal of Computational and Nonlinear Dynamics*, vol. 10, no. 6, pp. 1–7, 2015.
- [897] S. Nadeem, A. Shaheen, and S. Hussain, "Physiological breakdown of Jeffrey six constant nanofluid flow in an endoscope with nonuniform wall," *AIP Advances*, vol. 5, no. 12, pp. 1–16, 2015.
- [898] M. M. Hassan, S. Bashir, and P. Mussel, "Personality, learning, and the mediating role of epistemic curiosity: A case of continuing education in medical physicians," *Learning and Individual Differences*, vol. 42, pp. 83–89, 2015.
- [899] M. Z. Mirza and S. Bashir, "Workers'9/11 in Pakistan: Neglected sparks causing conflagration," *International Journal of Occupational Safety and Ergonomics*, vol. 21, no. 3, pp. 405–410, 2015.
- [900] T. Tahir and A. Fraz, "Human capital, capital structure, employee pay: Empirical evidence from Pakistan," *Global Journal of Management And Business Research*, vol. 15, no. 9, pp. 1–23, 2015.
- [901] S. M. M. R. Naqvi and S. Bashir, "IT-expert retention through organizational commitment: A study of public sector information technology professionals in Pakistan," Applied Computing and Informatics, vol. 11, no. 1, pp. 60–75, 2015.
- [902] A. Rasheed, S. Ajmal, and A. Qayyum, "Adaptive routing update approach for VANET using local neighbourhood change information," *Malaysian Journal of Com*puter Science, vol. 27, no. 4, 2014.
- [903] A. Rasheed, S. Ajmal, and A. Qayyum, "Protocol independent adaptive route update for VANET," *The Scientific World Journal*, vol. 2014, 2014.
- [904] M. S. Akbar, M. S. Khan, K. A. Khaliq, A. Qayyum, and M. Yousaf, "Evaluation of IEEE 802.11n for multimedia application in VANET," *Procedia Computer Science*, vol. 32, pp. 953–958, 2014.
- [905] T. Saraj, M. Yousaf, S. Akbar, A. Qayyum, and M. Tufail, "Isp independent architecture (iia) for ipv6 packet traversing and inter-connectivity over hybrid (ipv4/ipv6) internet," *Procedia Computer Science*, vol. 32, pp. 973–978, 2014.
- [906] K. A. Khaliq, M. S. Akbar, A. Qayyum, E. Elahi, and A. Zaheer, "Congestion avoidance hybrid wireless mesh protocol (CA-HWMP) for IEEE 802.11s," *Procedia Com*puter Science, vol. 32, pp. 229–236, 2014.

- [907] S. Naz, T. Siraj, M. S. Akbar, M. Yousaf, A. Qayyum, and M. Tufail, "Performance analysis of IPv6 QoS for multimedia applications using real testbed," *Procedia Computer Science*, vol. 32, pp. 182–189, 2014.
- [908] S. Ajmal, A. Rasheed, A. Qayyum, and A. Hasan, "Classification of VANET MAC, routing and approaches: A detailed survey," *Journal of Universal Computer Science*, vol. 20, no. 4, pp. 462–487, 2014.
- [909] M. Ghafoor, I. A. Taj, W. Ahmad, and N. M. Jafri, "Efficient 2-fold contextual filtering approach for fingerprint enhancement," *IET Image Processing*, vol. 8, no. 7, pp. 417–425, 2014.
- [910] M. Raza, G. Ahmed, and N. Khan, "Power control-based GRACE (PC-GRACE) routing protocol for wireless sensor networks," *Journal of Networking Technology*, vol. 5, no. 4, pp. 137–144, 2014.
- [911] Q. Khan, A. I. Bhatti, and A. Ferrara, "Dynamic sliding mode control design based on an integral manifold for nonlinear uncertain systems," *Journal of Nonlinear Dynamics*, vol. 2014, pp. 1–10, 2014.
- [912] M. Pervaiz, Q. Khan, A. I. Bhatti, and S. A. Malik, "Dynamical adaptive integral sliding backstepping control of nonlinear nontriangular uncertain systems," *Mathematical Problems in Engineering*, vol. 2014, pp. 1–14, 2014.
- [913] M. A. Akram, M. A. Rizvi, A. I. Bhatti, and N. Messai, "Mode identification for hybrid model of SI engine to detect misfire fault," *Journal of Control Engineering and Applied Informatics*, vol. 16, no. 3, pp. 65–74, 2014.
- [914] A. A. Uppal, A. I. Bhatti, E. Aamir, R. Samar, and S. A. Khan, "Control oriented modeling and optimization of one dimensional packed bed model of underground coal gasification," *Journal of Process Control*, vol. 24, no. 1, pp. 269–277, 2014.
- [915] M. Pervaiz, Q. Khan, A. I. Bhatti, and S. A. Malik, "Output tracking via adaptive backstepping higher order integral sliding mode for uncertain nonlinear systems," *Discrete Dynamics in Nature and Society*, vol. 2014, pp. 1–10, 2014.
- [916] Q. Khan and A. I. Bhatti, "Robust dynamic integral sliding mode for MIMO nonlinear systems operating under matched and unmatched uncertainties," *Journal of Control Engineering and Applied Informatics*, vol. 16, no. 4, pp. 107–117, 2014.
- [917] N. Mehdi, M. Rehan, F. M. Malik, A. I. Bhatti, and M. Tufail, "A novel anti-windup framework for cascade control systems: An application to underactuated mechanical systems," ISA Transactions, vol. 53, no. 3, pp. 802–815, 2014.
- [918] Y. A. Butt, Y. L. Sachkov, and A. I. Bhatti, "Extremal trajectories and Maxwell strata in sub-Riemannian problem on group of motions of pseudo-Euclidean plane," *Journal of Dynamical and Control Systems*, vol. 20, no. 3, pp. 341–364, 2014.
- [919] M. A. R. Anjum and M. M. Ahmed, "A new approach for inversion of large random matrices in massive MIMO systems," *PloS One*, vol. 9, no. 4, pp. 1–7, 2014.

- [920] M. H. Zaheer, M. Rehan, G. Mustafa, and M. Ashraf, "Delay-range-dependent chaos synchronization approach under varying time-lags and delayed nonlinear coupling," ISA Transactions, vol. 53, no. 6, pp. 1716–1730, 2014.
- [921] M. A. Z. Raja, R. Samar, and M. M. Rashidi, "Application of three unsupervised neural network models to singular nonlinear BVP of transformed 2D Bratu equation," Neural Computing and Applications, vol. 25, no. 7-8, pp. 1585–1601, 2014.
- [922] M. Z. Shah, M. K. Ozgoren, and R. Samar, "3D guidance of unmanned aerial vehicles using sliding mode approach," World Academy of Science, Engineering and Technology, International Journal of Mechanical, Aerospace, Industrial, Mechatronic and Manufacturing Engineering, vol. 8, no. 10, pp. 1705–1711, 2014.
- [923] S. M. Shah, R. Samar, S. M. R. Naqvi, and J. A. Chambers, "Fractional order constant modulus blind algorithms with application to channel equalisation," *Electronics Letters*, vol. 50, no. 23, pp. 1702–1704, 2014.
- [924] M. A. Z. Raja, R. Samar *et al.*, "Solution of the 2-dimensional Bratu problem using neural network, swarm intelligence and sequential quadratic programming," *Neural Computing and Applications*, vol. 25, no. 7-8, pp. 1723–1739, 2014.
- [925] M. A. Z. Raja and R. Samar, "Numerical treatment for nonlinear MHD Jeffery–Hamel problem using neural networks optimized with interior point algorithm," *Neurocomputing*, vol. 124, pp. 178–193, 2014.
- [926] M. A. Z. Raja and R. Samar, "Numerical treatment of nonlinear MHD Jeffery-Hamel problems using stochastic algorithms," *Computers & Fluids*, vol. 91, pp. 28–46, 2014.
- [927] M. Riaz, M. Rehan, K.-S. Hong, M. Ashraf, and H. U. Rasheed, "Static and adaptive feedback control for synchronization of different chaotic oscillators with mutually Lipschitz nonlinearities," *Chinese Physics B*, vol. 23, no. 11, p. 110502, 2014.
- [928] J.-G. Lee, U. A. Khan, J.-S. Hwang, J.-K. Seong, W.-J. Shin, B.-B. Park, and B.-W. Lee, "Assessment on the influence of resistive superconducting fault current limiter in VSC-HVDC system," *Physica C: Superconductivity and its Applications*, vol. 504, pp. 163–166, 2014.
- [929] U. Rafique and S. A. Ali, "Ultra-wideband patch antenna for K-band applications," Indonesian Journal of Electrical Engineering and Computer Science, vol. 12, no. 12, pp. 8252–8256, 2014.
- [930] Z. Tang, M. Ali, and N. Chouw, "Residual compressive and shear strengths of novel coconut-fibre-reinforced-concrete interlocking blocks," *Construction and Building Materials*, vol. 66, pp. 533–540, 2014.
- [931] M. Ali, "Seismic performance of coconut-fibre-reinforced-concrete columns with different reinforcement configurations of coconut-fibre ropes," Construction and Building Materials, vol. 70, pp. 226–230, 2014.

- [932] N. Sharif, M. T. Afzal, and D. Helic, "Learning management systems: A need for specialized systems," *Transaction on Internet Research, Special Issue*, vol. 10, no. 2, pp. 44–47, 2014.
- [933] S. UrRehman, A. F. Haider, M. T. Afzal, and M. Asghar, "Measuring the relevance between tags and citations in social web," *Research Journal of Applied Sciences*, Engineering and Technology, vol. 7, no. 24, pp. 5172–5178, 2014.
- [934] M. T. Khan et al., "CYP3A5 polymorphism and the risk of cancer: A metaanalysis," European Scientific Journal, vol. 10, no. 30, 2014.
- [935] A. A. Haider, A. Nadeem, and S. Rafiq, "Multiple objective test suite optimization: A fuzzy logic based approach," *Journal of Intelligent & Fuzzy Systems*, vol. 27, no. 2, pp. 863–875, 2014.
- [936] M. Haseeb, S. Vaqar, S. Fazal, and A. Khalil, "Ligand based pharmacophore development for colorectal cancer drugs," *Professional Medical Journal*, vol. 21, no. 5, 2014.
- [937] U. Shaukat, M. Toor, B. Ahmad, S. Fazal, and N. Mehmood, "Genetic and computational analysis of Tgfb1 & Fgfr2 polymorphism in correlation to breast cancer susceptibility in Pakistani women," *Journal of Cancer Science and Therapy*, vol. 6, pp. 433–439, 2014.
- [938] S. M. Bakhtiar, A. Ali, S. M. Baig, D. Barh, A. Miyoshi, and V. Azevedo, "Identifying human disease genes: advances in molecular genetics and computational approaches," *Genetics and Molecular Research*, vol. 13, no. 3, pp. 5073–5087, 2014.
- [939] F. Usman, B. Ahmad, and S. Hussain, "Institutional based prevalence of ischemic heart disease in Khyber Pakhtunkhwa Pakistan," Journal of Rashid Latif Medical College, vol. 1, pp. 01–05, 2014.
- [940] S. Zeb, S. Rehman, M. S. Khan, and H. S. Fazal, S and, "Parkinson's disease mechanisms and its treatment," *Journal of Rashid Latif Medical College*, vol. 3, no. 1, pp. 49–53, 2014.
- [941] S. Hussain, F. K. Bakhtiar, and M. H. Khan, "A bayesian meta-analysis and systematic review on global and local prevalence of hepatitis B," *International Journal of Scientific Research and Management*, vol. 2, no. 12, pp. 1846–1855, 2014.
- [942] S. Hussain, "Hepatitis B: A global burden," International Journal of Novel Research in Life Sciences, vol. 1, no. 1, pp. 24–30, 2014.
- [943] S. Hussain, "A common genetic disorder "deafness"," International Journal of Novel Research in Life Sciences, vol. 1, no. 1, pp. 31–37, 2014.
- [944] S. Hussain, M. H. Khan, M. T. Khan, S. Zeb, M. Haseeb, and A. U. Tariq, "Association of gjb2 gene mutations with non syndromic autosomal recessive deafness in different populations of the world," *International Journal of Basic and Applied Sciences*, vol. 3, no. 4, p. 521, 2014.

- [945] M. T. Khan, S. S. B. Khan, and S. Hussain, "Study of antimicrobial activity of garlic extracts against foodborne pathogens and its comparison with garlic oil and different antibiotics," *Pakistan Journal of Clinical and Biomedical Research*, vol. 2, no. 1, pp. 33–37, 2014.
- [946] M. Fatima, O. Khan, and S. Hussain, "Antimicrobial activity of citrus lemon against food borne pathogens," *Pakistan Journal of Clinical and Biomedical Research*, vol. 2, no. 1, pp. 27–32, 2014.
- [947] S. Hussain, F. Schieweck, and S. Turek, "Efficient Newton-multigrid solution techniques for higher order space—time Galerkin discretizations of incompressible flow," *Applied Numerical Mathematics*, vol. 83, pp. 51–71, 2014.
- [948] S. Ahmad, S. Hussain, A. A. Siddiqui, A. Ali, and M. Aqeel, "Application of Fourier transform to MHD flow over an accelerated plate with partial-slippage," *AIP Advances*, vol. 4, no. 6, pp. 1–10, 2014.
- [949] Z. Hassan, Z. Saleem, A. A. Rajput *et al.*, "The mediating role of employee engagement between the relationship of distributive justice and organizational citizenship behavior: Empirical evidence from aviation sector of Pakistan," *International Journal of Management Sciences*, vol. 2, no. 11, pp. 494–500, 2014.
- [950] A. A. Rajput and S. H. Kalhoro, "The impact of macro factors entrepreneur, innovation and opportunity on entrepreneurial success of SMEs," *Middle-East Journal of Scientific Research*, vol. 20, no. 2, pp. 149–161, 2014.
- [951] F. Hanif and S. M. M. R. Naqvi, "Analysis of work family conflict in view of nurses," Health Sector of Pakistan: International Journal of Gender and Women Studies, vol. 2, no. 4, pp. 103–116, 2014.
- [952] M. A. Z. Raja, R. Samar *et al.*, "Neural network optimized with evolutionary computing technique for solving the 2-dimensional Bratu problem," *Neural Computing and Applications*, vol. 23, no. 7-8, pp. 2199–2210, 2013.
- [953] R. Samar, M. Z. Shah, and M. Nzar, "Lateral control implementation for an unmanned aerial vehicle," *ISRN Aerospace Engineering*, vol. 2013, pp. 1–14.
- [954] S. Naz, M. Naeem, and A. Qayyum, "Performance evaluation of index schemes for semantic cache," *International Journal of Information Technology and Computer Sci*ence, vol. 5, no. 4, pp. 40–46, 2013.
- [955] S. Gillani, M. Naeem, R. Habibullah, and A. Qayyum, "Semantic schema matching using DBpedia," *International Journal of Intelligent Systems and Applications*, vol. 5, no. 4, pp. 72–80, 2013.
- [956] U. I. Bajwa, I. A. Taj, M. W. Anwar, and X. Wang, "A multifaceted independent performance analysis of facial subspace recognition algorithms," *PloS One*, vol. 8, no. 2, pp. 1–12, 2013.

- [957] M. Ajab, I. A. Taj, I. Shafi, and S. Stankovic, "A new form of Gabor Wigner Transform by adaptive thresholding in Gabor Transform and Wigner distribution and the power of signal synthesis techniques to enhance the strengths of GWT," *Metrology and Measurement Systems*, vol. 20, no. 1, pp. 99–106, 2013.
- [958] M. Riaz, S. J. Nawaz, and N. M. Khan, "3D ellipsoidal model for mobile-to-mobile radio propagation environments," Wireless Personal Communications, vol. 72, no. 4, pp. 2465–2479, 2013.
- [959] Z. M. Loni and N. M. Khan, "Analysis of fading statistics in cellular mobile communication systems," The Journal of Supercomputing, vol. 64, no. 2, pp. 295–309, 2013.
- [960] Q. Ahmed, A. I. Bhatti, M. A. Rizvi, and M. Raza, "Gasoline engine air filter health monitoring by second-order sliding modes," *International Journal of Adaptive Control and Signal Processing*, vol. 27, no. 6, pp. 447–461, 2013.
- [961] S. Hussain, A. Bhatti, A. Samee, and S. H. Qaiser, "Estimation of reactivity and average fuel temperature of a pressurized water reactor using sliding mode differentiator observer," *IEEE Transactions on Nuclear Science*, vol. 60, no. 4, pp. 3025–3032, 2013.
- [962] Q. R. Butt, A. I. Bhatti, M. R. Mufti, M. A. Rizvi, and I. Awan, "Modeling and online parameter estimation of intake manifold in gasoline engines using sliding mode observer," *Simulation Modelling Practice and Theory*, vol. 32, pp. 138–154, 2013.
- [963] S. Hussain, A. I. Bhatti, A. Samee, and S. H. Qaiser, "Estimation of precursor density of a power reactor using uniform second order sliding mode observer," *Annals of Nuclear Energy*, vol. 54, pp. 233–239, 2013.
- [964] Q. Ahmed, A. I. Bhatti, Q. Khan, and M. Raza, "Condition monitoring of gasoline engine air intake system using second order sliding modes," *International Journal of Vehicle Design*, vol. 62, no. 2-4, pp. 312–332, 2013.
- [965] A. Arshad, A. I. Bhatti, E. Aamir, R. Samar, and S. A. Khan, "Optimization of 1-D packed bed model of underground coal gasification," *Optimization*, no. 1/52, 2013.
- [966] M. Naeem, S. Gillani, M. A. Qadir, and S. Asghar, "gSemSim: Semantic similarity measure for intra gene ontology terms," *International Journal of Information Tech*nology and Computer Science (IJITCS), pp. 32–40, 2013.
- [967] M. Naeem, M. B. Khan, and M. T. AFzal, "Expertise discovery: A web mining approach," *Journal of AI and Data Mining*, pp. 35–47, 2013.
- [968] N. A. Sajid, M. T. Afzal, M. A. Qadir, and S. A. Khan, "The insights of classification schemes," *Sindh University Research Journal (SURJ)*, vol. 46, 2013.
- [969] N. A. Sajid, S. Asghar, M. Afzal, and T. Ali, "Fuzzy based document classification," *Proceeding of the Pakistan Academy of Sciences*, vol. 51, no. 2, 2013.

- [970] I. A. Qureshi and A. Nadeem, "GUI testing techniques: A survey," *International Journal of Future Computer and Communication*, vol. 2, no. 2, p. 142, 2013.
- [971] A. A. Haider and A. Nadeem, "A survey of safety analysis techniques for safety critical systems," *International Journal of Future Computer and Communication*, vol. 2, no. 2, p. 134, 2013.
- [972] A. A. Haider and A. Nadeem, "Formal modelling languages to specify real-time systems: A survey," *International Journal of Future Computer and Communication*, vol. 2, no. 2, p. 130, 2013.
- [973] S. Bilal, S. B. Ali, S. Fazal, and A. Mir, "Generation of a 3d model for human cereblon using comparative modelling," *Journal of Bioinformatics and Sequence Analysis*, vol. 5, no. 1, pp. 10–15, 2013.
- [974] M. H. Khan, S. Fazal, R. Bano, and H. Rashid, "A miracle if restored, p53," African Journal of Biotechnology, vol. 12, no. 24, pp. 3745–3751, 2013.
- [975] A. Kanwal, S. Fazal, S. Asghar, and M. Naeem, "MODY GENES, linkage analysis and subgroup discovery from text documents," *Professional Medical Journal*, vol. 20, no. 4, 2013.
- [976] A. Kanwal, S. Fazal, S. Asghar, and M. Naeem, "Subgroup discovery of the MODY GENES," Professional Medical Journal, vol. 20, no. 5, 2013.
- [977] R. Mahmood and S. Hussain, "Galerkin discretizations of 4th order in space and time for the convection-diffusion-reaction (CoDiRe) equation," *International Journal of Basic & Applied Sciences*, vol. 13, no. 4, pp. 1–12, 2013.
- [978] S. Bashir and M. Nasir, "Breach of psychological contract, organizational cynicism and union commitment: A study of hospitality industry in Pakistan," *International Journal of Hospitality Management*, vol. 34, pp. 61–65, 2013.
- [979] M. A. Khattak, N. Iqbal, A. A. Rajut et al., "Impact of culture on the employee performance: A comparison of private and public sector universities," International Journal of Academic Research in Accounting, Finance and Management Sciences, vol. 3, no. 1, pp. 210–218, 2013.
- [980] N. Jamal and A. Fraz, "Relationship of single stock futures with the spot price: Evidence from Karachi stock exchange," Research Journal of the Institute of Business Administration Karachi-Pakistan, vol. 8, no. 1, pp. 52–76, 2013.
- [981] S. Naqvi, M. Ishtiaq, N. Kanwal, M. U. Butt, and S. Nawaz, "Impact of gender diversity on team performance: The moderating role of organizational culture in telecom sector of Pakistan," *Asian Journal of Social Sciences & Humanities*, vol. 2, no. 4, pp. 228–235, 2013.
- [982] S. M. M. R. Naqvi, N. Kanwal, M. Ishtiaq, and M. U. Butt, "Impact of corporate social responsibility on organizational performance of tobacco industry of Pakistan with

- moderating role of business ethics," *International Journal of Management Sciences and Business Research*, vol. 2, no. 9, pp. 23–27, 2013.
- [983] S. M. M. R. Naqvi, N. Kanwal, M. Ishtiaq, M. Ali et al., "Impact of job autonomy on organizational commitment: Moderating role of job satisfaction in tobacco industry of Pakistan," Far East Journal of Psychology and Business, vol. 12, no. 5, pp. 57–72, 2013.
- [984] S. R. Naqvi, M. Ishtiaq, N. Kanwal, and M. Ali, "Impact of job autonomy on organizational commitment and job satisfaction: The moderating role of organizational culture in fast food sector of Pakistan," *International Journal of Business and Management*, vol. 8, no. 17, pp. 92–102, 2013.
- [985] S. M. M. R. Naqvi, M. Ishtiaq, N. Kanwal, M. Ali, and I. S, "Impact of corporate social responsibility on brand image in different FMCGs of Pakistan," *Interdisciplinary Journal of Contemporary Research In Business*, vol. 5, no. 1, pp. 79–93, 2013.
- [986] S. M. M. R. Naqvi, F. Malik, and Q. Mahmood, "The impact of promotions, recognition, autonomy and pay incentives on job satisfaction: A case of banking sector employees in Pakistan," European Journal of Business Management, vol. 5, no. 5, pp. 187–193, 2013.
- [987] S. Jawaid, A. A. Rajput, and S. M. M. R. Naqvi, "Impact of celebrity endorsement on teenager impulsive buying behavior," *Interdisciplinary Journal of Contemporary Research in Business*, vol. 4, no. 10, pp. 1071–1080, 2013.
- [988] Q. Khan, A. I. Bhatti, M. Iqbal, and Q. Ahmed, "Dynamic integral sliding mode control for SISO uncertain nonlinear systems," *International Journal of Innovative Computing, Information and Control*, vol. 8, no. 7, pp. 4621–4633, 2012.
- [989] I. H. Kazmi and A. I. Bhatti, "Parameter estimation of proton exchange membrane fuel cell system using sliding mode observer," *International Journal of Innovative Computing, Information and Control*, vol. 8, no. 7B, pp. 5137–5148, 2012.
- [990] S. H. Qaiser, M. Iqbal, A. I. Bhatti, R. Samar, and J. Qadir, "Estimation of reactivity in a research reactor by using a second-order sliding mode observer," *Nuclear Science* and Engineering, vol. 172, no. 3, pp. 327–336, 2012.
- [991] P. A. Shah, M. Yousaf, A. Qayyum, and H. B. Hasbullah, "Performance comparison of end-to-end mobility management protocols for TCP," *Journal of Network and Computer Applications*, vol. 35, no. 6, pp. 1657–1673, 2012.
- [992] S. Naz, Y. Majeed, and A. Qayyum, "Automatic translation of heterogeneous data models," *International Journal of Computer and Communication Engineering*, vol. 1, no. 1, pp. 35–38, 2012.
- [993] M. Yousaf, A. Qayyum, and S. A. Malik, "An architecture for exploiting multihoming in mobile devices for vertical handovers & bandwidth aggregation," Wireless Personal Communications, vol. 66, no. 1, pp. 57–79, 2012.

- [994] M. Rafiq, S.-u. Rehman, F.-u. Rehman, Q. R. Butt, and I. Awan, "A second order sliding mode control design of a switched reluctance motor using super twisting algorithm," *Simulation Modelling Practice and Theory*, vol. 25, pp. 106–117, 2012.
- [995] U. I. Bajwa, I. A. Taj, and M. W. Anwar, "A unified classifier for robust face recognition based on combining multiple subspace algorithms," *Optics Communications*, vol. 285, no. 21, pp. 4324–4332, 2012.
- [996] M. Ajab, I. A. Taj, and N. A. Khan, "Comparative analysis of variants of Gabor-Wigner transform for cross-term reduction," *Metrology and Measurement Systems*, vol. 19, no. 3, pp. 499–508, 2012.
- [997] Q. Ahmed, A. Iqbal, I. Taj, and K. Ahmed, "Gasoline engine intake manifold leakage diagnosis/prognosis using hidden Markov model," *International Journal of Innovative Computing, Information and Control*, vol. 8, no. 7, pp. 4661–4674, 2012.
- [998] M. Touseef, M. Aziz-ul Haq, U. Rafique, M. A. Khan, M. M. Ahmed *et al.*, "Genetic algorithm optimization of log-periodic dipole array," *International Journal of Electromagnetics and Applications*, vol. 2, no. 6, pp. 169–173, 2012.
- [999] U. Rafique, S. A. Ali, M. T. Afzal, and M. Abdin, "Bandstop filter design for GSM shielding using Frequency Selective Surfaces," *International Journal of Electrical and Computer Engineering*, vol. 2, no. 6, pp. 846–850, 2012.
- [1000] I. A. Sajid, S. G. Ziavras, and M. M. Ahmed, "Efficient face recognition using frequency distribution curve matching," *IET Image Processing*, vol. 6, no. 8, pp. 1161–1169, 2012,.
- [1001] I. A. Sajid, M. M. Ahmed, and M. Sagheer, "An optimized face recognition system using stable orthogonalization," *International Journal of Innovative Computing*, Information and Control, vol. 8, no. 1A, pp. 219–32, 2012.
- [1002] M. Abdin, U. Rafique, F. Malik, S. Qasim, M. A. Khan, and M. M. Ahmed, "A novel dual-band frequency selective surface absorber," *International Journal of Electromag*netics and Applications, vol. 2, no. 6, pp. 182–185, 2012.
- [1003] M. Aziz-ul Haq, M. T. Afzal, U. Rafique, M. A. Khan, M. M. Ahmed *et al.*, "Log periodic dipole antenna design using particle swarm optimization," *International Journal of Electromagnetics and Applications*, vol. 2, no. 4, pp. 65–68, 2012.
- [1004] S. J. Nawaz, K. I. Ahmed, M. N. Patwary, and N. M. Khan, "Superimposed training-based compressed sensing of sparse multipath channels," *IET Communications*, vol. 6, no. 18, pp. 3150–3156, 2012.
- [1005] R. Samar and W. A. Kamal, "Optimal path computation for autonomous aerial vehicles," *Cognitive Computation*, vol. 4, no. 4, pp. 515–525, 2012.
- [1006] I. Ghalib, M. H. Agha, S. Hameed, and M. A. Choudhary, "A survey of lean implementation gap analysis in public sector organizations," *Life Science Journal*, vol. 9, no. 4, pp. 1261–1269, 2012.

- [1007] S. Hameed, M. H. Agha, and M. A. Choudhary, "The role of data protection technologies: A case study," *Life Science Journal*, vol. 9, no. 4, pp. 1270–1279, 2012.
- [1008] A. Hanif and M. H. Agha, "Utilizing quality tools: A predictive maintenance perspective," *International Journal of Performability Engineering*, vol. 8, no. 6, pp. 699–704, 2012.
- [1009] S. Z. Ahmad, M. A. Qadir, M. S. Akbar, and A. Bouras, "Analysis of multi-server scheduling paradigm for service guarantees during network mobility," Wireless Personal Communications, vol. 63, no. 1, pp. 177–197, 2012.
- [1010] T. Hussain, M. A. Qadir, and S. Asghar, "Fuzzification of web objects: a semantic web mining approach," *International Journal of Computer Science*, vol. 9, no. 2, pp. 61–67, 2012.
- [1011] M. Ahmad, S. Gruner, and M. T. Afzal, "Computational analysis of medieval manuscripts: A new tool for analysis and mapping of medieval documents to modern orthography," *Journal of Universal Computer Science (JUCS)*, vol. 18, no. 20, pp. 2750–2770, 2012.
- [1012] A. Latif, M. T. Afzal, and H. A. Maurer, "Weaving scholarly legacy data into web of data," *Journal of Universal Computer Science (JUCS)*, vol. 18, no. 16, pp. 2301–2318, 2012.
- [1013] M. W. Hussain, M. T. Afzal, and M. Waqas, "Finding semantic relationship among associated medical terms," *International Journal of Emerging Sciences*, vol. 2, no. 2, p. 300, 2012.
- [1014] S. A. Khan, M. T. Afzal, and M. A. Qadir, "Metadata based classification of scientific documents," *International Journal of Information Studies*, vol. 4, no. 4, pp. 184–193, 2012.
- [1015] S. Kanwal, S. Nishat, M. I. Khan, S. I. Malik, and K. Akhtar, "Comparative homology modeling of human rhodopsin with several templates of bovine rhodopsin," *African Journal of Biotechnology*, vol. 11, no. 2, pp. 466–473, 2012.
- [1016] Z. Khalid, S. Sameen, S. Malik, and S. Shehzad, "Computational analysis on the role of GPM6A in human thyroid cancer," *Journal of Data Mining in Genomics and Proteomics*, vol. 3, no. 114, pp. 2153–0602, 2012.
- [1017] S. A. Shad, A. H. Sayyed, S. Fazal, M. A. Saleem, S. M. Zaka, and M. Ali, "Field evolved resistance to carbamates, organophosphates, pyrethroids, and new chemistry insecticides in Spodoptera litura Fab. (Lepidoptera: Noctuidae)," *Journal of pest* science, vol. 85, no. 1, pp. 153–162, 2012.
- [1018] S. F. Attiya K., "Maturity-onset diabetes of the young (MODY) Genes: Literature review," *Clinical Practice*, vol. 1, no. 1, pp. 4–11, 2012.

- [1019] S. Azam, S. Fazal, and I. Muhammad, "Assessment of non-syndromic autosomal recessive intellectual disability (NS-ARID) genes," *International Journal of Modern Pharmaceutical Research*, vol. 1, pp. 94–105, 2012.
- [1020] S. Bashir, M. Nasir, S. Qayyum, and A. Bashir, "Dimensionality of counterproductive work behaviors in public sector organizations of Pakistan," *Public Organization Review*, vol. 12, no. 4, pp. 357–366, 2012.
- [1021] A. A. Rajput, S. H. Kalhoro, and R. Wasif, "Impact of product price and quality on consumer buying behavior: Evidence from Pakistan," *Interdisciplinary Journal of Contemporary Research in Business*, vol. 4, no. 4, pp. 485–496, 2012.
- [1022] S. Rasool, A. A. Kiyani, M. J. Aslam, M. U. Akram, and A. A. Rajput, "Impact of organizational culture on employee's career salience: An empirical study of banking sector in Islamabad, Pakistan," *International Journal of Business and Social Science*, vol. 3, no. 7, pp. 299–306, 2012.
- [1023] H. Haroon, H. R. Yasir, S. Azeem, and F. Ahmed, "International portfolio diversification in developing equity markets of South Asia," *Studies in Business & Economics*, vol. 7, no. 1, pp. 80–100, 2012.
- [1024] S. M. M. R. Naqvi, M. Ishtiaq, N. Kanwal, and S. Inderyas, "Impact of gender diversity on organizational performance in telecom sector of Pakistan: The moderating role of organizational culture," Scottish Journal of Arts, Social Sciences and Scientific Studies, vol. 7, no. 1, pp. 32–49, 2012.
- [1025] S. J. Nawaz, N. M. Khan, M. N. Patwary, and M. Moniri, "Effect of directional antenna on the Doppler spectrum in 3-D mobile radio propagation environment," *IEEE Transactions on Vehicular Technology*, vol. 60, no. 7, pp. 2895–2903, 2011.
- [1026] Q. Ahmed, A. I. Bhatti, and M. Iqbal, "Virtual sensors for automotive engine sensors fault diagnosis in second-order sliding modes," *IEEE Sensors Journal*, vol. 11, no. 9, pp. 1832–1840, 2011.
- [1027] S. Iqbal and A. I. Bhatti, "Load varying polytopic based robust controller design in LMI framework for a 2DOF stabilized platform," Arabian Journal for Science and Engineering, vol. 36, no. 2, pp. 311–327, 2011.
- [1028] Q. Ahmed and A. I. Bhatti, "Estimating SI engine efficiencies and parameters in second-order sliding modes," *IEEE Transactions on Industrial Electronics*, vol. 58, no. 10, pp. 4837–4846, 2011.
- [1029] M. A. Rizvi, A. I. Bhatti, and Q. R. Butt, "Hybrid model of the gasoline engine for misfire detection," *IEEE Transactions on Industrial Electronics*, vol. 58, no. 8, pp. 3680–3692, 2011.
- [1030] M. Iqbal, A. I. Bhatti, S. I. Ayubi, and Q. Khan, "Robust parameter estimation of nonlinear systems using sliding-mode differentiator observer," *IEEE Transactions on Industrial Electronics*, vol. 58, no. 2, pp. 680–689, 2011.

- [1031] E. Elahi and A. Qayyum, "Connection oriented bandwidth aggregation system," International Journal of Multidisciplinary Sciences and Engineering, vol. 2, no. 7, pp. 64–68, 2011.
- [1032] M. Rafiq and Q. Raza, "Time-varying stabilizing feedback control for a sub-class of nonholonomic systems," European Journal of Scientific Research, vol. 53, no. 3, pp. 346–358, 2011.
- [1033] F. Rehman and Q. Butt, "Feedback stabilization of nonholonomic systems accomplished by tracking to their own extended systems," *European Journal of Scientific Research*, 2011.
- [1034] M. Rafiq, S. U. Rehman, F. R. Rehman, and Q. A. Butt, "Performance comparison of PI and sliding mode for speed control applications of SR motor," *European Journal* of Scientific Research, vol. 50, no. 3, pp. 368–384, 2011.
- [1035] M. Rafiq, S.-u.-R. , F. Rehman, and Q. Butt, "Power efficient higher order sliding mode control of switched reluctance motor for speed control applications," *Interna*tional Journal of Computer Science Issues, vol. 8, no. 1, pp. 378–387, 2011.
- [1036] N. A. Khan, I. A. Taj, M. N. Jaffri, and S. Ijaz, "Cross-term elimination in Wigner distribution based on 2D signal processing techniques," *Signal Processing*, vol. 91, no. 3, pp. 590–599, 2011.
- [1037] U. I. Bajwa, I. A. Taj, and Z. E. Bhatti, "A comprehensive comparative performance analysis of Laplacianfaces and Eigenfaces for face recognition," *The Imaging Science Journal*, vol. 59, no. 1, pp. 32–40, 2011.
- [1038] I. A. Sajid, M. M. Ahmed, and M. Sagheer, "FPGA-based householder implementation for efficient eigenvalues calculation," *International Journal of Innovative Computing, Information and Control*, vol. 7, no. 10, pp. 5939–5946, 2011.
- [1039] S. A. Moiz, K. S. Karimov, and M. M. Ahmed, "Effect of gravity condition on charge transport properties of polymer thin film deposited by centrifigual method," Optoelectronics and Advanced Materials: Rapid Communications, vol. 5, pp. 577–580, 2011.
- [1040] K. H. Karimov, M. M. Ahmed, Z. M. Karieva, M. Saleem, A. Mateen, and S. A. Moiz, "Humidity sensing properties of carbon nano-tube thin films," *Sensor Letters*, vol. 9, no. 5, pp. 1649–1653, 2011.
- [1041] M. T. Afzal and H. A. Maurer, "Expertise recommender system for scientific community," Journal of Universal Computer Science (JUCS), vol. 17, no. 11, pp. 1529–1549, 2011.
- [1042] M. Fahad, N. Moalla, A. Bouras, M. A. Qadir, and M. Farukh, "Towards classification of web ontologies for the emerging semantic web," *Journal of Universal Computer Science*, vol. 17, no. 7, pp. 1021–1042, 2011.

- [1043] N. I. Qazi and M. A. Qadir, "Algorithms for the evaluation of ontologies for extended error taxonomy and their application on large ontologies," *Journal of Universal Com*puter Science, vol. 17, no. 7, pp. 1005–1020, 2011.
- [1044] S. A. Khan, M. T. Afzal, A. B. Nawab, M. A. Qadir, and A. Shahid, "Discoveries of contextualized research areas for scientific community," *Australian Journal of Basic* and Applied Science, vol. 5, no. 6, pp. 1641–1647, 2011.
- [1045] A. Shahid, M. T. Afzal, and M. Qadir, "Discovering semantic relatedness between scientific articles through citation frequency," in Workshop on Text mining for Scholarly Communications and Repositories, Australian Journal of Basic Applied Sciences, vol. 5, 2011, pp. 1599–1604.
- [1046] A. A. A. Jilani, M. Usman, and A. Nadeem, "Comparative study on DFD to UML diagrams transformations," World of Computer Science and Information Technology, vol. 1, no. 1, pp. 10–16, 2011.
- [1047] K. Latif, A. Nadeem, and G.-s. Lee, "A UML profile for real time industrial control systems," *Software Engineering, Business Continuity, and Education*, pp. 97–107, 2011.
- [1048] Z. Shaukat Iqbal Malik, S. Khalid, and Sameen, "In silico gene expression based analysis on claudine family members association with human thyroid cancer," *Journal of Proteomics and Bioinformatics*, 2011.
- [1049] S. Sameen, Z. Khalid, and S. I. Malik, "Role of pyruvate dehydrogenase kinases (PDKs) and their respective microRNAs in human ovarian cancer," *Journal of Medical Genetics and Genomics*, vol. 3, no. 7, pp. 115–121, 2011.
- [1050] S. Malik and S. Khan, "Cancer prevention through employ of appropriate diet in daily schedule," *Journal of Cancer Science & Therapy*, vol. 15, p. 17, 2011.
- [1051] K. Attiya, F. Sahar, M. Ismail, M. Qaisar, and J. Amara, "Linkage analysis of first six MODY genes to known LOCI and screening of three most prevalent MODY genes in pakistani population," *International Journal of Genetics*, vol. 3, no. 1, p. 35, 2011.
- [1052] R. Bano, S. Fazal, M. H. Khan, and H. Rashid, "miRNAs: Small but deadly," African Journal of Biotechnology, vol. 10, no. 47, pp. 9542–9548, 2011.
- [1053] A. Kanwal, S. Fazal, M. Ismail, and N. Naureen, "A narrative insight to maturity-onset diabetes of the young," *Clinical Reviews and Opinions*, vol. 3, no. 1, pp. 6–13, 2011.
- [1054] S. Bashir, H. R. Khattak, A. Hanif, and S. N. Chohan, "Whistle-blowing in public sector organizations: Evidence from Pakistan," The American Review of Public Administration, vol. 41, no. 3, pp. 285–296, 2011.
- [1055] S. Bashir, "HIV/AIDS stigma at the workplace: Exploratory findings from Pakistan," SAHARA-J: Journal of Social Aspects of HIV/AIDS, vol. 8, no. 3, pp. 156–161, 2011.

- [1056] A. Rajput, "Impact of innovation and resources in entrepreneurial success: A case study of Pakistani SMEs," *Interdisciplinary Journal of Contemporary Research in Business*, vol. 2, no. 11, pp. 606–636, 2011.
- [1057] M. Rehmani and M. I. Khan, "The impact of e-media on customer purchase intention," International Journal of Advanced Computer Science and Applications, vol. 2, no. 3, pp. 100–103, 2011.
- [1058] S. M. M. R. Naqvi and S. Nadeem, "Impact of high performance work practices system on motivation," *Interdisciplinary Journal of Contemporary Research in Business*, vol. 3, no. 8, pp. 197–210, 2011.
- [1059] I. Ahmad and A. I. Bhatti, "A novel technique for spectral processing of a fiber optic gyroscope," *Kuwait Journal of Science & Engineering*, vol. 37, no. 1B, pp. 49–68, 2010.
- [1060] F.-u. Rehman and L. Khan, "Attitude regulating control of a rigid spacecraft model in actuating failure mode," *International Journal of Modelling and Simulation*, vol. 30, no. 3, pp. 277–288, 2010.
- [1061] R. Samar, S. Zahir, and M. A. Khan, "Flight control using pin-protuberances for blunted cones," *The Aeronautical Journal*, vol. 114, no. 1154, pp. 245–257, 2010.
- [1062] R. Samar and I. Postlethwaite, "Design and implementation of a digital multimode H∞ controller for the Spey turbofan engine," *Journal of Dynamic Systems, Measurement, and Control*, vol. 132, no. 1, pp. 1–11, 2010.
- [1063] M. S. Razzaq and N. M. Khan, "Performance comparison of adaptive beamforming algorithms for smart antenna systems," World Applied Sciences Journal, vol. 11, no. 7, pp. 775–785, 2010.
- [1064] S. J. Nawaz, B. H. Qureshi, and N. M. Khan, "A generalized 3-D scattering model for a macrocell environment with a directional antenna at the BS," *IEEE Transactions* on Vehicular Technology, vol. 59, no. 7, pp. 3193–3204, 2010.
- [1065] M. T. Ibrahim, M. A. Khan, K. S. Alimgeer, M. K. Khan, I. A. Taj, and L. Guan, "Velocity and pressure-based partitions of horizontal and vertical trajectories for online signature verification," *Pattern Recognition*, vol. 43, no. 8, pp. 2817–2832, 2010.
- [1066] M. T. Afzal, H. Maurer, W.-T. Balke, and N. Kulathuramaiyer, "Rule based autonomous citation mining with TIERL," *Journal of Digital Information Management*, vol. 8, no. 3, pp. 196–204, 2010.
- [1067] A. U. Saeed, M. T. Afzal, A. Latif, and K. Tochtermann, "Disseminating knowledge through tags: Recommending tags for scientific resources," *Journal of IT in Asia*, vol. 3, 2010.
- [1068] A. Latif, A. Us Saeed, P. Hoefler, K. Tochtermann, and M. T. Afzal, "Harvesting pertinent resources from linked open data," *Journal of Digital Information Management*, vol. 8, no. 3, pp. 205–212, 2010.

- [1069] A. D. Kligerman, S. I. Malik, and J. A. Campbell, "Cytogenetic insights into DNA damage and repair of lesions induced by a monomethylated trivalent arsenical," Mutation Research/Genetic Toxicology and Environmental Mutagenesis, vol. 695, no. 1, pp. 2–8, 2010.
- [1070] S. Khan, A. Shahid, S. Fazal, and A. Jilani, "Predoms: A computational toolkit developed to perform prediction of domains from sequence," World Applied Sciences Journal, vol. 8, pp. 44–46, 2010.
- [1071] S. H. Qaiser, A. I. Bhatti, M. Iqbal, R. Samar, and J. Qadir, "Estimation of precursor concentration in a research reactor by using second order sliding mode observer," Nuclear Engineering and Design, vol. 239, no. 10, pp. 2134–2140, 2009.
- [1072] S. H. Qaiser, A. I. Bhatti, M. Iqbal, R. Samar, and J. Qadir, "Model validation and higher order sliding mode controller design for a research reactor," *Annals of Nuclear Energy*, vol. 36, no. 1, pp. 37–45, 2009.
- [1073] I. Sajid, M. M. Ahmed, and I. Taj, "Time efficient face recognition using stable Gram-Schmidt orthonormalization," *International Journal of Signal Processing, Image Processing and Pattern*, vol. 1, no. 2, pp. 35–48.
- [1074] S. A. Moiz, M. M. Ahmed, K. S. Karimov, F. Rehman, and J.-H. Lee, "Space charge limited current-voltage characteristics of organic semiconductor diode fabricated at various gravity conditions," *Synthetic Metals*, vol. 159, no. 13, pp. 1336–1339, 2009.
- [1075] N. M. Khan, Z. Khalid, and G. Ahmed, "Gradient cost establishment (GRACE) for an energy-aware routing in wireless sensor networks," EURASIP Journal on Wireless Communications and Networking, vol. 2009, p. 7, 2009.
- [1076] F. Yousuf, A. Nadeem, Z. Zaman, and M. Ali, "A configurable fault tolerant architecture for component-based systems," *International Journal of Software Engineering and Its Applications*, vol. 3, no. 2, pp. 1738–9984, 2009.
- [1077] M. Usman and A. Nadeem, "Automatic generation of java code from UML diagrams using UJECTOR," *International Journal of Software Engineering and Its Applications*, vol. 3, no. 2, pp. 21–37, 2009.
- [1078] A. A. Rajput and M. Ali, "A preliminary investigation of entrepreneurial women in potohar region of Pakistan," *Journal of Chinese Entrepreneurship*, vol. 1, no. 3, pp. 193–208, 2009.
- [1079] Q. R. Butt and A. I. Bhatti, "Estimation of gasoline-engine parameters using higher order sliding mode," *IEEE Transactions on Industrial Electronics*, vol. 55, no. 11, pp. 3891–3898, 2008.
- [1080] S. Gillani, I. Khan, S. Qureshi, and A. Qayyum, "Vehicular ad hoc network (VANET): enabling secure and efficient transportation system," *Technical Journal, University of Engineering and Technology, Taxila*, vol. 13, 2008.

- [1081] M. M. Ahmed, K. S. Karimov, and S. A. Moiz, "Photoelectric behavior of n-GaAs/orange dye, vinyl-ethynyl-trimethyl-piperidole/conductive glass sensor," *Thin Solid Films*, vol. 516, no. 21, pp. 7822–7827, 2008.
- [1082] N. M. Khan, M. T. Simsim, and P. B. Rapajic, "A generalized model for the spatial characteristics of the cellular mobile channel," *IEEE Transactions on Vehicular Technology*, vol. 57, no. 1, pp. 22–37, 2008.
- [1083] M. S. Akbar, S. Z. Ahmed, and M. A. Qadir, "Performance optimization of transmission control protocol in heterogeneous wireless network during mobility," IJCSNS International Journal of Computer Science and Network Security, vol. 8, no. 8, pp. 70–80, 2008.
- [1084] M. Ahmad, M. A. Qadir, A. Razaque, and M. S. Ullah, "Efficient query processing over semantic cache," *Intelligent Systems and Agents*, p. 61, 2008.
- [1085] I. Ihsan, M. Rehman, M. U. Ahmed, and M. A. Qadir, "S-point a semantic based e-learning content development tool," *Journal of Applied Sciences*, vol. 8, no. 1, pp. 127–133, 2008.
- [1086] A. Razaque, M. A. Qadir, K. Shahzad, O. B. Nazir, and S. H. Khalid, "Device discovery with qualitative & quantitative analysis of TCP variants under mobility based anchor point node in hybrid network," Wireless Applications and Computing, p. 129, 2008.
- [1087] M. Fahad and A. Nadeem, "A survey of UML based regression testing," Intelligent Information Processing IV, pp. 200–210, 2008.
- [1088] S. Bashir and M. I. Ramay, "Determinants of organizational commitment: A study of information technology professionals in Pakistan," *Journal of Behavioral and Applied Management*, vol. 9, no. 2, pp. 226–238, 2008.
- [1089] K. Shahzad, S. Bashir, and M. I. Ramay, "Impact of HR practices on perceived performance of university teachers in Pakistan," *International Review of Business Research Papers*, vol. 4, no. 2, pp. 302–315, 2008.
- [1090] A. A. Rajput and A. Murad, "A national survey: An examination of entrepreneurship centers in Pakistan," *International Journal of Entrepreneurship*, vol. 12, 2008.
- [1091] S. R. Naqvi, Q. Mahmood, A. A. Minhas, J. Khattak, and F. Malik, "Impact of organizational career management activities on organizational commitment: A case of IT companies of Pakistan," Scholarly Journal of Business Administration, vol. 3, no. 1, pp. 7–11, 2013.
- [1092] A. Rahman, S. M. M. R. Naqvi, and M. I. Ramay, "Measuring turnover intention: A study of it professionals in Pakistan," *International Review of Business Research Papers*, vol. 4, no. 3, pp. 45–55, 2008.

- [1093] Z. Khalid, G. Ahmed, and N. M. Khan, "Impact of mobile sink speed on the performance of wireless sensor networks," *Journal of Information & Communication Technology*, vol. 1, no. 2, pp. 49–55, 2007.
- [1094] K. S. Karimov, M. M. Ahmed, S. A. Moiz, P. Babadzhanov, R. Marupov, and M. A. Turaeva, "Electrical properties of organic semiconductor orange nitrogen dye thin films deposited from solution at high gravity," *Eurasian Chemico-Technological Journal*, vol. 5, no. 2, pp. 109–113, 2007.
- [1095] N. M. Memon, M. M. Ahmed, and F. Rehman, "A comprehensive four parameters I-V model for GaAs MESFET output characteristics," *Solid-State Electronics*, vol. 51, no. 3, pp. 511–516, 2007.
- [1096] S. A. Moiz, M. M. Ahmed, K. S. Karimov, and M. Mehmood, "Temperature-dependent current-voltage characteristics of poly-N-epoxypropylcarbazole complex," Thin Solid Films, vol. 516, no. 1, pp. 72–77, 2007.
- [1097] F. U. Rehman, M. M. Ahmed, and N. Ahmed, "Steering control algorithm for drift-free control systems using model decomposition: a wheeled mobile robot of type (1, 1) example," *International Journal of Robotics & Automation*, vol. 22, no. 4, p. 313, 2007.
- [1098] M. M. Ahmed and S. A. Moiz, "Steering algorithm for drift free control systems," Communications in Applied Analysis, vol. 11, no. 3-4, pp. 485–514, 2007.
- [1099] F. U. Rehman and M. M. Ahmed, "Steering control algorithm for a class of wheeled mobile robots," *IET Control Theory & Applications*, vol. 1, no. 4, pp. 915–924, 2007.
- [1100] O. Abdul Hamid, M. Abdul Qadir, N. Iftikhar, M. Ur Rehman, M. Uddin Ahmed, and I. Ihsan, "Generic multimedia database architecture based upon semantic libraries," *Informatica*, vol. 18, no. 4, pp. 483–510, 2007.
- [1101] B. Shahzad and M. Afzal, "Enhanced shell sorting algorithm," Computer Journal of Enformatika, vol. 21, no. 6, pp. 66–70, 2007.
- [1102] S. Ali, L. C. Briand, M. J.-u. Rehman, H. Asghar, M. Z. Z. Iqbal, and A. Nadeem, "A state-based approach to integration testing based on UML models," *Information and Software Technology*, vol. 49, no. 11, pp. 1087–1106, 2007.
- [1103] M. A. Qadir and I. Ahmad, "Digital text watermarking: Secure content delivery and data hiding in digital documents," *IEEE Aerospace and Electronic Systems Magazine*, vol. 21, no. 11, 2006.
- [1104] S. Hijazi and S. Naqvi, "Factors affecting students performnce: A case of private colleges," *Bangladesh e-Journal of Sociology*, vol. 3, no. 1, pp. 12–17, 2006.
- [1105] S. A. Moiz, M. M. Ahmed, and K. S. Karimov, "Effects of temperature and humidity on electrical properties of organic semiconductor orange dye films deposited from solution," *Japanese Journal of Applied Physics*, vol. 44, no. 3, pp. 1199–1203, 2005.

- [1106] Y. Zafar and M. M. Ahmed, "A novel FPGA compliant micropipeline," *IEEE Transactions on Circuits and Systems II: Express Briefs*, vol. 52, no. 9, pp. 611–615, 2005.
- [1107] K. S. Karimov, M. M. Ahmed, S. A. Moiz, and M. I. Fedorov, "Temperature-dependent properties of organic-on-inorganic Ag/p-CuPc/n-GaAs/Ag photoelectric cell," Solar Energy Materials and Solar Cells, vol. 87, no. 1, pp. 61–75, 2005.
- [1108] A. Nadeem and M. J.-U. Rehman, "TESTAF: A test automation framework for class testing using object-oriented formal specifications," *Journal of Universal Computer Science*, vol. 11, no. 6, pp. 962–985, 2005.
- [1109] A. Nadeem and M. Y. Javed, "An empirical analysis of secret key encryption algorithms," *Teknologix Journal*, 2005.