

RESEARCH OUTLOOK

2021



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1. Publications without School/Department Affiliation

2. **Haq I.U., Hussain B., Saeed M.** *The Role of Humor in Understanding the Trolling Behavior of Social Media Users in Pakistan.* International Journal of Media and Information Literacy. 6,2.
3. **Ali S., Masood W., Rizvi H., Jahangir R., Mirza A.M.** *Contribution of the generalized (r, q) distributed electrons in the formation of nonlinear ion acoustic waves in upper ionospheric plasmas.* AIP Advances. 11,12.
4. **Manan A., Kamal K., Ratlamwala T.A.H., Sheikh M.F., Abro A.G., Zafar T.** *Failure classification in natural gas pipe-lines using artificial intelligence: A case stud.* Energy Reports. 7.
5. **Ikhlaq A., Raashid M., Akram A., Kazmi M., Farman S.** *Removal of methylene blue dye from aqueous solutions by adsorption in combination with ozonation on iron loaded sodium zeolite: Role of adsorption.* Desalination and Water Treatment. 237.
6. **Hassan S.U., Farid M.A., Wang Y.** *A series of lanthanide-quinoxaline-2,3(1: H,4 H)-dione complexes containing 1D chiral Ln₂O₃(Ln = Eu, Tb, Sm, Dy) chains: Luminescent properties and response to small molecules.* RSC Advances. 11,53.
7. **Shabbir M., Rafique S., Majeed R., Mahjabeen H., Waris M., Hamza U.** *Comparison of sub-occipital myofascial release and cervical mobilization in managing cervicogenic headache.* Medical Forum Monthly. 32, 9.
8. **Hameed U., Qaiser Z., Qaiser K., Zadi K.I., Pollock B.** *Indigenous peoples in Pakistan: In consideration of the right to cultural property and identity.* China and WTO Review. 7,2.
9. **Islam S.R., Alassod A., Patoary M.K., Naveed T., Ali M.A., Jiang J.** *Study on thermal, thermo-mechanical, and flexural properties of jute fiber surface modification and its reinforced composite.* AATCC Journal of Research. 8,5.
10. **Saeed M.** *Green sukuk for financing renewable projects in Islamic social finance: Problems and solutions.* Contemporary Issues in Islamic Social Finance.
11. **Bqa R., Asloob Qureshi S., Shakeel T., Naseer A.** *Reverse Engineering on Planar Contours: An Algorithmic Review.* ACM International Conference Proceeding Series.

12. Hussain B., Bardi J.N., Fatima T. *Pregnancy related cultural food practices among Pakistani women in the UK: A qualitative study.* British Journal of Midwifery. 29,7.
13. Sattar M.U., Palaniappan S., Lokman A., Shah N., Riaz Z., Khalid U. *User experience design in virtual reality medical training application.* Journal of the Pakistan Medical Association. 71,7.
14. Mukhtar S., Mukhtar S., Rana W. *COVID-19 Feminist Framework to Address Public Health Impact of Violence, Abuse, and Trauma in Children, Women, BIPOC, and LGBTQIA+ Community: A Preliminary Observation.* Asia-Pacific Journal of Public Health. 33,5.
15. De Clercq D., Suhail A., Azeem M.U., Haq I.U. *Citizenship pressure and job performance: roles of citizenship fatigue and continuance commitment.* Asia Pacific Journal of Human Resources. 59,3.
16. Tariq S., Mehmood S., Nisa A., Ul-Haq Z., Mehmood U. *Remote sensing of aerosol properties during intense smog events over Lahore (Pakistan).* Kuwait Journal of Science. 48,4.
17. Perveen A. *Nationalism, transnationalism and sense of belonging: Burnt shadows as a post 9/11 Cosmopolitan critique of terror.* Forum for World Literature Studies. 13,2.
18. Akgul A., Fatima U., Iqbal M.S., Ahmed N., Raza A., Iqbal Z., Rafiq M. *A fractal fractional model for computer virus dynamics.* Chaos, Solitons and Fractals. 147.
19. Kazmi S., Kanwal F., Rathore K., Faheem K., Fatima A. *The Relationship between Transformational Leadership and Organisational Learning Capability with the Mediating Role of Perceived Human Resource Effectiveness.* South Asian Journal of Human Resources Management. 8,1.
20. Raza A., Kayani A.K., Murad H.S. *Aging, life expectancy and changes in life style: Situational analysis of Pakistan.* Aging in Asia.
21. Cordes D., Kaleem M.F., Yang Z., Zhuang X., Curran T., Sreenivasan K.R., Mishra V.R., Nandy R., Walsh R.R. *Energy-Period Profiles of Brain Networks in Group fMRI Resting-State Data: A Comparison of Empirical Mode Decomposition With the Short-Time Fourier Transform and the Discrete Wavelet Transform.* Frontiers in Neuroscience. 15.

22. Ali A., Kamal K., Ratlamwala T. A.H., Fahad Sheikh M., Arsalan M. *Power prediction of waste heat recovery system for a cement plant using back propagation neural network and its thermodynamic modeling.* International Journal of Energy Research. 45,6.
23. Mehta A.M., Ali S.A. *Dynamic managerial capabilities and sustainable market competencies: role of organisational climate.* International Journal of Ethics and Systems. 37,2.
24. Shehzadi S., Nisar Q.A., Hussain M.S., Basheer M.F., Hameed W.U., Chaudhry N.I. *The role of digital learning toward students' satisfaction and university brand image at educational institutes of Pakistan: a post-effect of COVID-19.* Asian Education and Development Studies. 10,2.
25. Raza S., Saeed M.I., Ali F. *Terrorism Challenges Faced By South Asian Association for Regional Cooperation Countries: A Perceptive Prospect Of Trade.* Review of International Geographical Education Online. 11,2.
26. Wijaya N.H., Ibrahim M., Shahu N., Sattar M.U. *Arduino-based digital advanced audiometer.* Journal of Robotics and Control (JRC). 2,2.
27. Bukhari S., Kalim R., Arshed N., Hassan M.S. *Pervading poverty in saarc countries: Can education help?* Asia-Pacific Social Science Review. 21,1.
28. Ikhlaq A., Fatima R., Qazi U.Y., Javaid R., Akram A., Ibn Shamsah S., Qi F. *Combined iron-loaded zeolites and ozone-based process for the purification of drinking water in a novel hybrid reactor: Removal of faecal coliforms and arsenic.* Catalysts. 11,3.
29. Mukhtar S. *8 minutes and 46 seconds of “I Can’t Breathe”*: A call for anti-racist feminist solidarity amid COVID-19. International Social Work. 64,2.
30. Zafar M.W., Saeed A., Zaidi S.A.H., Waheed A. *The linkages among natural resources, renewable energy consumption, and environmental quality: A path toward sustainable development.* Sustainable Development. 29,2.
31. Rasheed A., Aslam H., Rashid K. *Antecedents of pro-environmental behavior of supply chain managers: an empirical study.* Management of Environmental Quality: An International Journal. 32,2.

32. Qadri H., Kumar S., Khan H.R., Yaqub A., Ullah I., Mukhtar S., Tahir M.J., Munir M.U. *Changes in Lifestyle, Health Practices, and Perceived Anxiety amidst the COVID-19 Pandemic: A Cross-Sectional Study Conducted on the General Population of Pakistan.* Medical Journal of the Islamic Republic of Iran. 35,1.
33. Mukhtar S., Rana W. *Biopsychosocial-Spiritual Model of COVID-19 for Healthcare Practitioners amidst and Post-Covid-19.* Psychiatria Danubina. 33,4.
34. Azhar K., Zafar S., Kashif A., Ojiema M.O. *Fault-Tolerant Partition Resolvability of Cyclic Networks.* Journal of Mathematics. 2021.
35. Mukhtar S. *COVID-19 feminist framework and biopsychosocial-spiritual perspective for social workers and mental health practitioners to manage violence, abuse, and trauma against children, women, BIPOC, and LGBTQIA+ during and post-COVID-19.* International Social Work.
36. Munir F., Anwar A., Kee D.M.H. *Online Learning and Students' Fear of COVID-19: Study in Malaysia and Pakistan.* International Review of Research in Open and Distance Learning. 22,4.
37. Azhar K., Zafar S., Kashif A. *On Fault-Tolerant Partition Dimension of Homogeneous Caterpillar Graphs.* Mathematical Problems in Engineering. 2021.
38. Noor Q., Alrowaili D.A., Rashid T., Husnine S.M. *Normal Wiggly Probabilistic Hesitant Fuzzy Information for Environmental Quality Evaluation.* Complexity. 2021.
39. Naseer A., Hussain S., Zafar K., Khan A. *A novel normal to tangent line (NTL) algorithm for scale invariant feature extraction for Urdu OCR.* International Journal on Document Analysis and Recognition.
40. Ali S.A., Loussaief A., Ahmed M. *A comparative analysis of employees' and customers' attitude towards Islamic banking.* International Journal of Ethics and Systems.
41. Ihsan M., Ur Rahman A., Saeed M. *Fuzzy Hypersoft Expert Set with Application in Decision Making for the Best Selection of Product.* Neutrosophic Sets and Systems. 46.
42. Wen M., Li M., Hu C., Hakro S., Hussain A., Heydari M., Zadi K.I., Arzo S. *Mathematical Methods for Identification of Core Competitors: Based on Social Networks and Hierarchical Cluster Analysis.* Mathematical Problems in Engineering. 2021.
43. Khatami F., Scuotto V., Krueger N., Cantino V. *The influence of the entrepreneurial ecosystem*

model on sustainable innovation from a macro-level lens. International Entrepreneurship and Management Journal.

44. Pan L., Ahmad M., Zahid Z., Zafar S. *Computation of the Double Metric Dimension in Convex Polytopes.* Journal of Mathematics. 2021.
45. Ashraf H.S., Sohail M., Tanveer F., Anjum A., Farooq H., Masood H. *Association of stress level with gender, semester of study and clinical practice in undergraduate physical therapy students: A cross sectional survey.* Pakistan Armed Forces Medical Journal. 71,4.
46. Siddiqui A., Warraich M.A. *Analyzing the Effectiveness of Strategic Marketing Contents on Customer Brand Engagement (Cbe): A Comparative Perspective Of Generation Y And Generation Z Consumers.* Journal of Legal, Ethical and Regulatory Issues. 24, Special Issue 1.
47. Raza A., Mata M.N., Martins J.M., Dantas R.M., Correia A.B., Ansari N.Y., Baig A. *Determining corporate social responsibility and consumer behavior trends and forecast by a historical review: A bibliometric analysis.* International Journal of Entrepreneurship. 25, Special Issue 1.
48. Fatima T., Bano S., Hussain B., Zaidi R., Shahzad A. *Residents' opinions on apartment living in Lahore, Pakistan.* Asian Journal for Public Opinion Research. 9,3.
49. Mughal A., Jamil N. *Total Face Irregularity Strength of Grid and Wheel Graph under K-Labeling of Type (1, 1, 0).* Journal of Mathematics. 2021.
50. Rehman H.A., Zafar K., Khan A., Imtiaz A. *Multiple sequence alignment using enhanced bird swarm align algorithm.* Journal of Intelligent and Fuzzy Systems. 41,1.
51. Azhar A., Yang K. *Examining the Influence of Transformational Leadership and Green Culture on Pro-Environmental Behaviors: Empirical Evidence from Florida City Governments.* Review of Public Personnel Administration.
52. Shaheen H., Ali F., Awais M., Saeed M. *Health-related information seeking during COVID-19: Testing the comprehensive model of information seeking on university students of Pakistan.* International Journal of Media and Information Literacy. 6,1.
53. Abdullah M., Oguchi T., Dias C. *Relocation of intersection crosswalks to nearby mid-block locations: Simulation-based performance evaluation.* Jordan Journal of Civil Engineering. 15,3.

54. **Ihsan M., Rahman A.U., Saeed M.** *Hypersoft Expert Set with Application in Decision Making for Recruitment Process*. Neutrosophic Sets and Systems. 42
55. **Naseer A., Yasir T., Azhar A., Shakeel T., Zafar K.** *Computer-Aided Brain Tumor Diagnosis: Performance Evaluation of Deep Learner CNN Using Augmented Brain MRI*. International Journal of Biomedical Imaging. 2021.
56. **Akbar K., Yongsheng J., Waheed A., Afzal F., Mahsud M.** *Impact of green practices on consumers' sustainable purchase intentions: Humans' management adopting green strategies in Pakistan*. Human Systems Management. 40,3.
57. **Lv J., Lv X., Nasir R., Zahid Z.** *The edge version of metric dimension for the family of Circulant graphs CN(1,2)*. IEEE Access.
58. **Nazeer I., Rashid T., Garcia Guirao J.L.** *Domination of Fuzzy Incidence Graphs with the Algorithm and Application for the Selection of a Medical Lab*. Mathematical Problems in Engineering. 2021.
59. **Nazeer I., Rashid T., Keikha A.** *An Application of Product of Intuitionistic Fuzzy Incidence Graphs in Textile Industry*. Complexity. 2021.
60. **Kayani S., Yasin M.M., Naeem A., Arif A.B., Mansoor S.R., Majeed A.** *Effects of mckenzie method of mechanical diagnosis and therapy on lumbar rom & pain in patients with non-specific low back pain*. Rawal Medical Journal. 46, 1.
61. **Zahra S.T., Saleem S.** *The development of a family cohesion scale: A preliminary validation*. FWU Journal of Social Sciences. 15,1.
62. **Ilyas S., Abid G., Ashfaq F., Ali M., Ali W.** *Status Quos Are Made to be Broken: The Roles of Transformational Leadership, Job Satisfaction, Psychological Empowerment, and Voice Behavior*. SAGE Open. 11,2.
63. **Waheed A., Zhang Q., Farrukh M., Khan S.Z.** *Effect of Mobile Social Apps on Consumers' Purchase Attitude: Role of Trust and Technological Factors in Developing Nations*. SAGE Open. 11,2.
64. **Haq I.U., De Clercq D., Azeem M.U.** *Job insecurity, work-induced mental health deprivation, and timely completion of work tasks*. Asia Pacific Journal of Human Resources.

65. Akram A., Ikhlaq A., Javed F., Kazmi M., Qi F. *Uv-irradiated fly ash-catalyzed fenton-type process for the removal of paracetamol in wastewater: Nickel, copper, and manganese as active sites.* Desalination and Water Treatment. 215.
66. Fang J., Nazeer I., Rashid T., Liu J.-B. *Connectivity and Wiener Index of Fuzzy Incidence Graphs.* Mathematical Problems in Engineering. 2021.
67. Javid M.A., Ali N., Hussain Shah S.A., Abdullah M. *Travelers' Attitudes toward Mobile Applications-Based Public Transport Services in Lahore.* SAGE Open. 11,1.
68. Akgul A., Ahmed N., Raza A., Iqbal Z., Rafiq M., Baleanu D., Rehman M.A.-U. *New applications related to Covid-19.* Results in Physics. 20.
69. Mukhtar S. *Psychology and politics of COVID-19 misinfodemics: Why and how do people believe in misinfodemics?* International Sociology. 36,1.
70. Ali A., Rashid T. *Best-worst method for robot selection.* Soft Computing. 25,1.
71. Mukhtar S. *Preparedness and proactive infection control measures of Pakistan during COVID-19 pandemic outbreak.* Research in Social and Administrative Pharmacy. 17,1.

2. Dr. Hasan Murad School of Management

72. Usman M., Ma Z., Zafar M.W., Waheed A., Li M. *Analyzing the determinants of clean energy consumption in a sustainability strategy: evidence from EU-28 countries.* Environmental Science and Pollution Research. 28,39.
73. Anwer Z., Mohamad S., Paltrinieri A., Hassan M.K. *Dividend payout policy of Shariah compliant firms: Evidence from United States.* Pacific Basin Finance Journal. 69.
74. Ashfaq M., Zhang Q., Ali F., Waheed A., Nawaz S. *You plant a virtual tree, we'll plant a real tree: Understanding users' adoption of the Ant Forest mobile gaming application from a behavioral reasoning theory perspective.* Journal of Cleaner Production. 310.
75. Gao P., Meng F., Mata M.N., Martins J.M., Iqbal S., Correia A.B., Dantas R.M., Waheed A., Xavier Rita J., Farrukh M. *Trends and future research in electronic marketing: A bibliometric*

analysis of twenty years. Journal of Theoretical and Applied Electronic Commerce Research. 16,5.

76. **Farid S., Kayani G.M., Naeem M.A., Shahzad S.J.H.** *Intraday volatility transmission among precious metals, energy and stocks during the COVID-19 pandemic.* Resources Policy. 72.
77. **Zhang W.-W., Sadiq R., Khan T.M., Khan M.M.** *Policy implications of remittances, trade liberalization and Dutch disease- A comparative analysis based on income categorization.* Resources Policy. 72.
78. **Malik S., Iqbal A., Imran A., Usman M., Nadeem M., Asif S., Bokhari A.** *Impact of economic capabilities and population agglomeration on PM2.5 emission: empirical evidence from sub-Saharan African countries.* Environmental Science and Pollution Research. 28,26.
79. **Naeem M.A., Farid S., Ferrer R., Shahzad S.J.H.** *Comparative efficiency of green and conventional bonds pre- and during COVID-19: An asymmetric multifractal detrended fluctuation analysis.* Energy Policy. 153.
80. **Waheed A., Farrukh M., Zameer H., Khan S.Z.** *Understanding the Impact of Social Apps and Social Network Sites on Consumers' Online Purchase Intention.* Global Business Review. 22,3.
81. **Wang X., Sadiq R., Khan T.M., Wang R.** *Industry 4.0 and intellectual capital in the age of FinTech.* Technological Forecasting and Social Change. 166.
82. **Rasheed M.A., Shahzad K., Nadeem S.** *Transformational leadership and employee voice for product and process innovation in SMEs.* Innovation and Management Review. 18,1.
83. **Arshed N., Munir M., Iqbal M.** *Sustainability assessment using STIRPAT approach to environmental quality: an extended panel data analysis.* Environmental Science and Pollution Research. 28,14.
84. **Ahad M., Anwer Z.** *Asymmetric impact of oil price on trade balance in BRICS countries: Multiplier dynamic analysis.* International Journal of Finance and Economics. 26,2.
85. **Umar M., Sial M.H., Ali S.A.** *Significance of Job Attitudes and Motivation in Fostering Knowledge Sharing Behaviour among Bank Personnel.* Journal of Information and Knowledge Management. 20,1.

86. De Clercq D., Azeem M.U., Haq I.U. *If the organization is a mess, do employees explain or exploit the situation?* Personnel Review. 50,2.
87. De Clercq D., Azeem M.U., Haq I.U. *But they promised! How psychological contracts influence the impact of felt violations on job-related anxiety and performance.* Personnel Review. 50,2.
88. Naeem M.A., Farid S., Nor S.M., Shahzad S.J.H. *Spillover and drivers of uncertainty among oil and commodity markets.* Mathematics. 9,4.
89. Li X., Nosheen S., Haq N.U., Gao X. *Value creation during fourth industrial revolution: Use of intellectual capital by most innovative companies of the world.* Technological Forecasting and Social Change. 163.
90. Ali S.A., Mujahid K., Umar M. *Feel like quitting the job? A causal attribution approach to social and work overload consequences.* Management Research Review.
91. Shahzad K., De Sisto M., Rasheed M.A., Bajwa S.U., Liu W., Bartram T. *A sequential relationship between entrepreneurial orientation, human resource management practices, collective organisational engagement and innovation performance of small and medium enterprises.* International Small Business Journal: Researching Entrepreneurship.
92. De Clercq D., Haq I.U., Azeem M.U. *Ignoring Leaders who Break Promises or Following God: How Depersonalization and Religious Faith Inform Employees' Timely Work Efforts.* British Journal of Management.
93. Saeed A., Rasheed F., Waseem M., Tabash M.I. *Green human resource management and environmental performance: the role of green supply chain management practices.* Benchmarking.
94. Ur Rehman Z., Ali S.A., Ahmed M., Khattak M.A. *Transition or change? The morphosis of One Belt One Road initiatives in Pakistan: A study on the challenges, prospects and outcomes of the China-Pakistan economic corridor.* International Journal of Technological Learning, Innovation and Development. 13,3.
95. Naeem M.A., Qureshi F., Farid S., Tiwari A.K., Elheddad M. *Time-frequency information transmission among financial markets: evidence from implied volatility.* Annals of Operations Research.

96. **Umar M., Sial M.H., Ali S.A., Bari M.W., Ahmad M.** *Trust and social network to boost tacit knowledge sharing with mediation of commitment: does culture moderate?* VINE Journal of Information and Knowledge Management Systems.
97. **Butt S., Yazdani N.** *Influence of Workplace Incivility on Counterproductive Work Behavior: Mediating Role of Emotional Exhaustion, Organizational Cynicism and the Moderating Role of Psychological Capital.* Pakistan Journal of Commerce and Social Science. 15,2.
98. **Anwer Z., Mohamad S., Azmi W., Shavkatovich Hasanov A.** *Product market fluidity and religious constraints: evidence from the US market.* Accounting and Finance.
99. **Rehman K.U., Mata M.N., Martins J.M., Mariam S., Rita J.X., Correia A.B.** *SHRM practices employee and organizational resilient behavior: Implications for open innovation.* Journal of Open Innovation: Technology, Market, and Complexity. 7,2.
100. **Waheed A., Zhang Q., Zafar A.U., Zameer H., Ashfaq M., Nusrat A.** *Impact of internal and external CSR on organizational performance with moderating role of culture: empirical evidence from Chinese banking sector.* International Journal of Bank Marketing.
101. **Jiang B., Gu D., Sadiq R., Mohsan Khan T., Chang H.-L.** *Does the stringency of government interventions for COVID19 reduce the negative impact on market growth? Evidence from Pacific and South Asia.* Economic Research-Ekonomska Istrazivanja.
102. **Shahid K., Yang Q., Waheed A., Rashid Y.** *The impact of technological alignment and advancement on firms' project performance with mediating role of technology acceptance model.* Human Systems Management. 40,2.
103. **Ain N.U., Azeem M.U., Sial M.H., Arshad M.A.** *Linking knowledge hiding to extra-role performance: The role of emotional exhaustion and political skills.* Knowledge Management Research and Practice.
104. **de Clercq D., Haq I.U., Azeem M.U., Khalid S.** *The link between fear about COVID-19 and insomnia: Mediated by economic concerns and psychological distress, moderated by mindfulness.* Journal of Management and Organization.
105. **Ahad M., Anwer Z., Ahmad W.** *Does crime-tourism nexus hold for Pakistan?* International Journal of Emerging Markets.

106. **Butt S.** *Service quality assessment and student satisfaction in business schools: Mediating role of perceived value.* Malaysian Online Journal of Educational Management. 9,1.
107. **Anwer Z., Azmi W., Mohamad S.** *Shariah screening and corporate governance: The case of constituent stocks of Dow Jones US Indices.* International Review of Economics and Finance.
108. **Nusrat A., He Y., Luqman A., Waheed A., Dhir A.** *Enterprise social media and cyber-slacking: A Kahn's model perspective.* Information and Management. 58,1.
109. **Naeem M.A., Farid S., Balli F., Hussain Shahzad S.J.** *Hedging the downside risk of commodities through cryptocurrencies.* Applied Economics Letters. 28,2.

Department of Economics & Statistics

109. **Zhao Y., Abbas M., Samma M., Ozkut T., Munir M., Rasool S.F.** *Exploring the Relationship between Corporate Social Responsibility, Trust, Corporate Reputation, and Brand Equity.* Frontiers in Psychology. 12.
110. **Salem S., Arshed N., Anwar A., Iqbal M., Sattar N.** *Renewable energy consumption and carbon emissions' testing nonlinearity for highly carbon emitting countries.* Sustainability (Switzerland). 13,21.
111. **Alharthi M., Hanif I.** *The role of energy types and environmental quality on human health in developing Asian countries.* Energy and Environment. 32,7.
112. **Arshed N., Hassan M.S.** *Revisiting nonlinear inflation-Growth relationship: A multidimensional nonlinear robust approach.* Transition Studies Review. 28,2.
113. **Kalim R., Arshed N., Ahmad W.** *Aligning the Real Sector Production with Human Development: Exploring Role of Multi-sector Collaboration.* Social Indicators Research. 157,3.
114. **Raza S.T., Hafeez S., Ali Z., Nasir Z.A., Butt M.M., Saleem I., Wu J., Chen Z., Xu Y.** *An assessment of air quality within facilities of municipal solid waste management (MSWM) sites in Lahore, Pakistan.* Processes. 9,9.

115. Kanwal A., Mehmood T., Butt M.M. *PLS and kernel SVM based hybrid classifier for discriminating FTIR spectrum data with limited sample size.* Chemometrics and Intelligent Laboratory Systems. 215.
116. Wang M., Arshed N., Munir M., Rasool S.F., Lin W. *Investigation of the STIRPAT model of environmental quality: a case of nonlinear quantile panel data analysis.* Environment, Development and Sustainability. 23,8.
117. Hao W., Rasul F., Bhatti Z., Hassan M.S., Ahmed I., Asghar N. *A technological innovation and economic progress enhancement: an assessment of sustainable economic and environmental management.* Environmental Science and Pollution Research. 28,22.
118. Hassan M.S., Iqbal M., Arshed N. *Distribution-based effects of disaggregated GDP and environmental quality- a case of quantile on quantile estimates.* Environmental Science and Pollution Research. 28,22.
119. Ali S.A., Alharthi M., Hussain H.I., Rasul F., Hanif I., Haider J., Ullah S., ur Rahman S., Abbas Q. *A clean technological innovation and eco-efficiency enhancement: A multi-index assessment of sustainable economic and environmental management.* Technological Forecasting and Social Change. 166.
120. Yang Z., Abbas Q., Hanif I., Alharthi M., Taghizadeh-Hesary F., Aziz B., Mohsin M. *Short- and long-run influence of energy utilization and economic growth on carbon discharge in emerging SREB economies.* Renewable Energy. 165.
121. Amin A., Liu X.-H., Abbas Q., Hanif I., Vo X.V. *Globalization, sustainable development and variation in cost of power plant technologies: A perspective of developing economies.* Environmental Science and Pollution Research. 28,9.
122. Liu J., Abbas Q., Alharthi M., Mohsin M., Rasul F., Iqbal N. *Managerial policy and economic analysis of wind-generated renewable hydrogen for light-duty vehicles: Green solution of energy crises.* Environmental Science and Pollution Research. 28,9.
123. Fu F.Y., Alharthi M., Bhatti Z., Sun L., Rasul F., Hanif I., Iqbal W. *The dynamic role of energy security, energy equity and environmental sustainability in the dilemma of emission reduction and economic growth.* Journal of Environmental Management. 280.

124. **Mohsin M., Hanif I., Taghizadeh-Hesary F., Abbas Q., Iqbal W.** *Nexus between energy efficiency and electricity reforms: A DEA-Based way forward for clean power development.* Energy Policy. 149.
125. **Hussain T., Gilani U.S., Khan S., Raza S.M.M.** *Assessment of general awareness among Pakistani students regarding COVID-19 outbreak.* Children and Youth Services Review. 121.
126. **Zahid T., Arshed N., Munir M., Hameed K.** *Role of energy consumption preferences on human development: a study of SAARC region.* Economic Change and Restructuring. 54,1.
127. **Pervaiz H.Z., Raza S.M.M., Butt M.M., Sharif S., Haider M.** *A new hybrid exponentially weighted moving average control chart using mixture ratio estimator of mean.* Proceedings of the Pakistan Academy of Sciences: Part A. 58,2.
128. **Hyder M., Mahmood T., Butt M.M., Raza S.M.M., Abbas N.** *On the location-based memory type control charts under modified successive sampling scheme.* Quality and Reliability Engineering International.
129. **Ali S., Abbas Z., Butt M.M.** *A comparison of different weather forecasting models for the monthly forecast of lahore city.* Mausam. 72,4.
130. **Yasin S., Salem S., Ayed H., Kamal S., Suhail M., Khan Y.A.** *Modified Robust Ridge M-Estimators in Two-Parameter Ridge Regression Model.* Mathematical Problems in Engineering. 2021.
131. **Javaid A., Arshed N.** *Demand for money laundering in developing countries and its deterrence: a quantitative analysis.* Journal of Money Laundering Control.
132. **Alharthi M., Hanif I., Ur Rehman H., Alamoudi H.** *Satisfaction of Pakistan's Islamic banking system during the COVID-19 pandemic Logistic model-based identification of the determinants to improve customer.* Journal of Islamic Marketing.
133. **Iqbal M., Ur Rehman H., Arshed N., Sardar M.S.** *The macroeconomic and demographic determinants of saving behavior in selected countries of Asia.* Journal Global Policy and Governance. 10,1.
134. **Arshed N., Sardar M.S., Iqbal M.** *Can efficient transport moderate real sector productivity?* Competitiveness Review.

135. **Awan A., Asghar N., ur Rehman H.** *The Impact of Financial Globalization on Output Volatility: Panel Data Evidence for Asian Countries.* Pakistan Journal of Commerce and Social Science. 15,1.
136. **Ali A., Butt M.M., Azad M.U.D., Ahmed Z., Hanif M.** *Stratified extreme-cum-median ranked set sampling.* Pakistan Journal of Statistics. 37,3.
137. **Abbas Q., Hanif I., Taghizadeh-Hesary F., Iqbal W., Iqbal N.** *Improving the Energy and Environmental Efficiency for Energy Poverty Reduction.* Economics, Law, and Institutions in Asia Pacific.
138. **Hassan M.S., Mahmood H., Tahir M.N., Yousef Alkhateeb T.T., Wajid A.** *Governance: A Source to Increase Tax Revenue in Pakistan.* Complexity. 2021.
139. **Arshed N., Kalim R.** *Exploration of the equilibrium level of Musharaka financing in full-fledged Islamic banks.* Journal of Islamic Accounting and Business Research. 12,3.
140. **Arshed N., Ahmad W., Munir M., Farooqi A.** *Estimation of national stress index using socioeconomic antecedents- a case of MIMIC model.* Psychology, Health and Medicine.
141. **Arshed N., Arif A., Abbas R.Z., Hameed K.** *Comparing quality of institutions with happiness of Asian people.* Estudios de Economia Aplicada. 39,3.
142. **Arshed N., Rauf R., Bukhari S.** *Empirical Contribution of Human Capital in Entrepreneurship.* Global Business Review.
143. **Arshed N., Ahmad W., Hanif U.** *A Spatial Temporal Exploration of Factors Motivating Academia-Industry Collaboration.* Journal of the Knowledge Economy.

Department of Banking & Finance

144. **Ayaz M., Jamal K.F., Shaheen S.** *Analyses of sources and uses of charity fund account: A case study of "Meezan" bank.* Contemporary Issues in Islamic Social Finance.
145. **Younas K., Rafay A.** *Women entrepreneurship and financial literacy: The case of female borrowers in Pakistan.* Iranian Economic Review. 25,3.

146. **Arshed N., Kalim R.** *Modelling demand and supply of Islamic banking deposits.* International Journal of Finance and Economics. 26,2.
147. **Hadji Abdul Racman S.M., Shah H.S., Ayaz M.** *The Ianao sultanate today: Its adat laws and Islamic law on fornication with special reference to the Islamic perspectives of Al-MÄwardÄ«.* Journal of Islamic Thought and Civilization. 11,1.
148. **Yasmin S., Hassan M.S., Arshed N., Tahir M.N.** *Psychological and environmental empirics of crimes in Pakistan.* Journal of Public Affairs.
149. **Amjad R.M., Rafay A., Arshed N., Munir M., Amjad M.M.** *Non-linear impact of globalization on financial crimes: a case of developing economies.* Journal of Money Laundering Control.
150. **Farid S., Tashfeen R., Mohsan T., Burhan A.** *Forecasting stock prices using a data mining method: Evidence from emerging market.* International Journal of Finance and Economics.

Department of Information System

151. **Amin A., Awais M., Sahai S., Hussain W., Rasool N.** *iDRP-PseAAC: Identification of DNA Replication Proteins Using General PseAAC and Position Dependent Features.* International Journal of Peptide Research and Therapeutics. 27,2.
152. **Zhang J., Chen L., Tian J.-X., Abid F., Yang W., Tang X.-F.** *Breast Cancer Diagnosis Using Cluster-based Undersampling and Boosted C5.0 Algorithm.* International Journal of Control, Automation and Systems. 19,5.
153. **Awais M., Hussain W., Khan Y.D., Rasool N., Khan S.A., Chou K.-C.** *IPhosH-PseAAC: Identify Phosphohistidine Sites in Proteins by Blending Statistical Moments and Position Relative Features According to the Chou's 5-Step Rule and General Pseudo Amino Acid Composition.* IEEE/ACM Transactions on Computational Biology and Bioinformatics. 18,2.
154. **Narmeen M., Sattar M.U., Khan H.W., Fatima M., Azad M.-U.-D., Ghani F.** *Impact of Weather on COVID-19 in Metropolitan Cities of Pakistan: A Data-Driven Approach.* International Journal of Computing and Digital Systems. 11,1.
155. **Yasir M., Chen L., Khatoon A., Malik M.A., Abid F.** *Mixed Script Identification Using Automated DNN Hyperparameter Optimization.* Computational Intelligence and Neuroscience. 2021.

156. **Abid F., Din I.U., Almogren A., Khattak H.A., Baig M.W.** *Augmentation of Contextualized Concatenated Word Representation and Dilated Convolution Neural Network for Sentiment Analysis*. Wireless Communications and Mobile Computing. 2021.
157. **Awais M., Hussain W., Rasool N., Khan Y.D.** *iTSP-pseAAC: Identifying tumor suppressor proteins by using fully connected neural network and pseAAC*. Current Bioinformatics. 16,5.
158. **Ghaffar A., Alanazi S., Alruwaili M., Sattar M.U., Ali W., Humayun M., Siddiqui S.Y., Ahmad F., Khan M.A.** *Multi-stage intelligent smart lockdown using sir model to control covid 19*. Intelligent Automation and Soft Computing. 28,2.
159. **Farooqi B.A., Ahmad M.R.B., Ali M.** *Analysis of interconnected configuration for penetration of distributed generation*. International Journal of Advanced Technology and Engineering Exploration. 8,74.

Department of Management

160. **Fatima A., Darain H., Gilani S.A., Ahmad A., Hanif A., Kazmi S.** *Role of extracorporeal shockwave therapy in patients with rotator cuff tendinopathy: Synthetic analysis of last two decades*. Journal of the Pakistan Medical Association. 71,6.
161. **Hameed K., Arshed N., Yazdani N., Munir M.** *Motivating business towards innovation: A panel data study using dynamic capability framework*. Technology in Society. 65.
162. **Hameed K., Arshed N., Yazdani N., Munir M.** *On globalization and business competitiveness: A panel data country classification*. Estudios de Economia Aplicada. 39,2.
163. **Bhatti K.M., Khalid S.** *Rent-seeking behaviour: Knowledge transfer as informal control mechanism in high technology alliances*. International Journal of Business and Globalisation. 27,1.
164. **Munir R., Abbas R.Z., Arshed N.** *DNA profiling and databasing: An analysis of issues and challenges in the criminal justice system of Pakistan*. Medicine, Science and the Law. 61,1.
165. **Yazdani N., Abbas, R.Z., Hameed, K.** *Quantum organizations with Islamic way forward*. Journal of Management and Research. 8, 1.

166. Hameed K., Yazdani N., Abbas Z., Arshed N. *Exploring the Employee's Commitment through Interpretative Phenomenological Analysis (IPA) Approach: Evidences from Private Sector Organizations of Pakistan.* iRASD Journal of Management. 3,2.
167. Ijaz B., Arshed N., Abbas Z., Hanif U., Hameed K. *Exploration of Role of Economic Globalization on Human Longevity.* iRASD Journal of Management. 3,2.

Department of Operations & Supply Chain

168. Aslam H., Azeem M.U., Bajwa S.U., Ramish A., Saeed A. *Developing organisational citizenship behaviour for the environment: the contingency role of environmental management practices.* Management Decision. 59,12.
169. Asghar M.I., Aslam H., Saeed A. *Linking supply chain professional's competencies to resilience in a turbulent world.* International Journal of Productivity and Performance Management.

Department of Quantitative Methods

170. Khan S., Gilani U.S., Raza S.M.M., Hussain T. *Knowledge, awareness and practices of Pakistani professionals amid-COVID-19 outbreak.* Scientific Reports. 11,1.
171. Raza S.M.M., Ali S., Shah I., Butt M.M. *Conditional mean- and median-based cumulative sum control charts for Weibull data.* Quality and Reliability Engineering International. 37,2.
172. Ali S., Khan H., Shah I., Butt M.M., Suhail M. *A comparison of some new and old robust ridge regression estimators.* Communications in Statistics: Simulation and Computation. 50,8.
173. Ali S., Raza S.M., Aslam M., Moeen Butt M. *CEV-Hybrid Dewma charts for censored data using Weibull distribution.* Communications in Statistics: Simulation and Computation. 50,2.

3. School of Systems and Technology

174. Ali S.F., Aslam A.S., Awan M.J., Yasin A., DamaÅ¡eviÄžius R. *Pose estimation of drivers' head panning based on interpolation and motion vectors under a boosting framework.* Applied Sciences (Switzerland). 11,24.

175. **Aamir K.M., Sarfraz L., Ramzan M., Bilal M., Shafi J., Attique M.** *A fuzzy rule-based system for classification of diabetes.* Sensors. 21,23.
176. **Inayat U., Iqbal S., Manzoor T., Zia M.F.** *Numerical investigation of heat transfer on unsteady hiemenz cu-water and ag-water nanofluid flow over a porous wedge due to solar radiation.* Applied Sciences (Switzerland). 11,22.
177. **Yaqoob M.K., Ali S.F., Bilal M., Hanif M.S., Al-Saggaf U.M.** *Resnet based deep features and random forest classifier for diabetic retinopathy detectionâ€.* Sensors. 21,11.
178. **Manzoor T., Nazar K., Iqbal S., Manzoor H.U.** *Theoretical investigation of unsteady MHD flow within non-stationary porous plates.* Heliyon. 7,3.
179. **Shakir M., Aslam S., Adnan M., Janjua K.A.** *Fuzzy Logic Based Closed Loop Buck Boost AC-AC Automatic Voltage Regulator.* 7th International Conference on Engineering and Emerging Technologies, ICEET 2021.
180. **Ishaq K., Rosdi F., Zin N.A.M., Abid A.** *Heuristics and Think-aloud Method for Evaluating the Usability of Game-based Language Learning.* International Journal of Advanced Computer Science and Applications. 12,11.
181. **Majeed U., Khan L.U., Yousafzai A., Han Z., Park B.J., Hong C.S.** *ST-BFL: A Structured Transparency Empowered Cross-Silo Federated Learning on the Blockchain Framework.* IEEE Access. 9.
182. **Javed I., Md Dawal S.Z., Nukman Y., Ahmad A.** *Prediction of work productivity outcomes by identifying critical risk factors among garment industry workers.* International Journal of Occupational Safety and Ergonomics.
183. **Iqbal S., Baleanu D., Ali J., Younas H.M., Riaz M.B.** *Fractional analysis of dynamical novel COVID-19 by semi-analytical technique.* CMES - Computer Modeling in Engineering and Sciences. 129,2.
184. **Aamir K., Bilal M., Ramzan M., Khan M.A., Nam Y., Kadry S.** *Classification of Retroviruses Based on Genomic Data Using RVGC.* Computers, Materials and Continua. 69,3.
185. **Ramzan M., Abid A., Awan S.M.** *Automatic unusual activities recognition using deep learning in Academia.* Computers, Materials and Continua. 70,1.

186. **Farooq U., Mohd Rahim M.S., Khan N.S., Rasheed S., Abid A.** *A Crowdsourcing-Based Framework for the Development and Validation of Machine Readable Parallel Corpus for Sign Languages.* IEEE Access. 9.
187. **Farooq U., Rahim M.S.M., Khan N.S., Rasheed S., Abid A.** *A Crowdsourcing Based Framework for the Development and Validation of Machine Readable Parallel Corpus for Sign Languages.* IEEE Access.
188. **Zahid A.H., Rashid H., Shaban M.M.U., Ahmad S., Ahmed E., Amjad M.T., Baig M.A.T., Arshad M.J., Tariq M.N., Tariq M.W., Zafar M.A., Basit A.** *Dynamic S-Box Design Using a Novel Square Polynomial Transformation and Permutation.* IEEE Access. 9.
189. **Zahid A.H., Tawalbeh L., Ahmad M., Alkhayyat A., Hassan M.T., Manzoor A., Farhan A.K.** *Efficient Dynamic S-Box Generation Using Linear Trigonometric Transformation for Security Applications.* IEEE Access. 9.
190. **Ahmed M., Ramzan M., Khan H.U., Iqbal S., Khan M.A., Choi J.-I., Nam Y., Kadry S.** *Real-time violent action recognition using key frames extraction and deep learning.* Computers, Materials and Continua. 69,2.
191. **Habib S., Ashraf A., Butt M.A., Ahmad M.** *Medical diagnosis based on single-valued neutrosophic information.* Neutrosophic Sets and Systems. 42.
192. **Hassan R.H., Hassan M.T., Naseer S., Khan Z., Jeon M.** *ICT enabled TVET education: a systematic literature review.* IEEE Access.
193. **Khelifi A., Aziz O., Farooq M.S., Abid A., Bukhari F.** *Social and Economic Contribution of 5G and Blockchain with Green Computing: Taxonomy, Challenges, and Opportunities.* IEEE Access. 9.
194. **Aziz O., Anees T., Mehmood E.** *An Efficient Data Access Approach with Queue and Stack in Optimized Hybrid Join.* IEEE Access. 9.
195. **Sardar R., Anees T.** *Web of Things: Security Challenges and Mechanisms.* IEEE Access. 9.
196. **Shaheen M., Anees T., Anjum M.J., Anum A.** *Usability Engineering Process for Medical Devices.* Advances in Intelligent Systems and Computing. 1290.

Department of Software Engineering

197. **Haafza L.A., Awan M.J., Abid A., Yasin A., Nobanee H., Farooq M.S.** *Big data covid-19 systematic literature review: Pandemic crisis.* Electronics (Switzerland). 10,24.
198. **Awan M.J., Rahim M.S.M., Salim N., Rehman A., Nobanee H., Shabir H.** *Improved deep convolutional neural network to classify osteoarthritis from anterior cruciate ligament tear using magnetic resonance imaging.* Journal of Personalized Medicine. 11,11.
199. **Awan M.J., Masood O.A., Mohammed M.A., Yasin A., Zain A.M., DamaÅjeviÄlius R., Abdulkareem K.H.** *Image-based malware classification using vgg19 network and spatial convolutional attention.* Electronics (Switzerland).10,19.
200. **Awan M.J., Gilani S.A.H., Ramzan H., Nobanee H., Yasin A., Zain A.M., Javed R.** *Cricket match analytics using the big data approach.* Electronics (Switzerland).10,19.
201. **Awan M.J., Farooq U., Babar H.M.A., Yasin A., Nobanee H., Hussain M., Hakeem O., Zain A.M.** *Real-time ddos attack detection system using big data approach.* Sustainability (Switzerland).13,19.
202. **Ferooz F., Hassan M.T., Awan M.J., Nobanee H., Kamal M., Yasin A., Zain A.M.** *Suicide bomb attack identification and analytics through data mining techniques.* Electronics (Switzerland).10,19.
203. **Awan M.J., Bilal M.H., Yasin A., Nobanee H., Khan N.S., Zain A.M.** *Detection of covid-19 in chest x-ray images: A big data enabled deep learning approach.* International Journal of Environmental Research and Public Health. 18,19.
204. **Awan M.J., Yasin A., Nobanee H., Ali A.A., Shahzad Z., Nabeel M., Zain A.M., Shahzad H.M.F.** *Fake news data exploration and analytics.* Electronics (Switzerland). 10,19.
205. **Nabeel M., Majeed S., Awan M.J., Muslih-Ud-din H., Wasique M., Nasir R.** *Review on effective disease prediction through data mining techniques.* International Journal on Electrical Engineering and Informatics. 13,3.

206. **Asim H., Asmat A., Ilyas K., Hassan M.T.** *COVID-19: Future Preference of University Students to Promote Online Education in Pakistan.* 2021 International Conference on Digital Futures and Transformative Technologies, ICoDT2 2021.
207. **Awan M.J., Khan R.A., Nobanee H., Yasin A., Anwar S.M., Naseem U., Singh V.P.** *A recommendation engine for predicting movie ratings using a big data approach.* Electronics (Switzerland). 10,10.
208. **Javed R., Saba T., Humdullah S., Mohd Jamail N.S., Javed Awan M.** *An Efficient Pattern Recognition Based Method for Drug-Drug Interaction Diagnosis.* 2021 1st International Conference on Artificial Intelligence and Data Analytics, CAIDA 2021.
209. **Aftab M.O., Javed Awan M., Khalid S., Javed R., Shabir H.** *Executing Spark BigDL for Leukemia Detection from Microscopic Images using Transfer Learning.* 2021 1st International Conference on Artificial Intelligence and Data Analytics, CAIDA 2021.
210. **Nagi A.T., Javed Awan M., Javed R., Ayesha N.** *A Comparison of Two-Stage Classifier Algorithm with Ensemble Techniques on Detection of Diabetic Retinopathy.* 2021 1st International Conference on Artificial Intelligence and Data Analytics, CAIDA 2021.
211. **Ahmed S.B., Ali S.F., Khan A.Z.** *On the Frontiers of Rice Grain Analysis, Classification and Quality Grading: A Review.* IEEE Access. 9.
212. **Awan M.J., Rahim M.S.M., Nobanee H., Munawar A., Yasin A., Zain A.M.** *Social Media and Stock Market Prediction: A Big Data Approach.* Computers, Materials and Continua. 67,2.
213. **Awan M.J., Rahim M.S.M., Nobanee H., Yasin A., Khalaf O.I., Ishfaq U.** *A big data approach to black Friday sales.* Intelligent Automation and Soft Computing. 27,3.
214. **Awan M.J., Rahim M.S.M., Salim N., Mohammed M.A., Garcia-Zapirain B., Abdulkareem K.H.** *Efficient Detection of Knee Anterior Cruciate Ligament from Magnetic Resonance Imaging Using Deep Learning Approach.* Diagnostics. 11,1.
215. **Gupta M., Jain R., Arora S., Gupta A., Awan M.J., Chaudhary G., Nobanee H.** *AI-enabled COVID-19 outbreak analysis and prediction: Indian states vs. union territories.* Computers, Materials and Continua. 67,1.

216. **Ali S.F., Khan M.A., Aslam A.S.** *Fingerprint matching, spoof and liveness detection: classification and literature review.* Frontiers of Computer Science. 15,1.

Department of Computer Science

217. **Hussain M., Javed W., Hakeem O., Yousafzai A., Younas A., Awan M.J., Nobanee H., Zain A.M.** *Blockchain-based IoT devices in supply chain management: A systematic literature review.* Sustainability (Switzerland). 13,24.
218. **Alzahrani E., Alghamdi W., Ullah M.Z., Khan Y.D.** *Identification of stress response proteins through fusion of machine learning models and statistical paradigms.* Scientific Reports. 11,1.
219. **Malebary S.J., Khan Y.D.** *Evaluating machine learning methodologies for identification of cancer driver genes.* Scientific Reports. 11,1.
220. **Alghamdi W., Alzahrani E., Ullah M.Z., Khan Y.D.** *4mC-RF: Improving the prediction of 4mC sites using composition and position relative features and statistical moment.* Analytical Biochemistry. 633.
221. **Alam T.M., Shaukat K., Mushtaq M., Ali Y., Khushi M., Luo S., Wahab A.** *Corporate Bankruptcy Prediction: An Approach towards Better Corporate World.* Computer Journal. 64,11.
222. **Farooq M.S., Rehman A.U., Idrees M., Raza M.A., Ali J., Masud M., Al-amri J.F., Kazmi S.H.R.** *An effective convolutional neural network model for the early detection of covid-19 using chest-ray images.* Applied Sciences (Switzerland). 11,21.
223. **Farooq U., Rahim M.S.M., Sabir N., Hussain A., Abid A.** *Advances in machine translation for sign language: approaches, limitations, and challenges.* Neural Computing and Applications. 33,21.
224. **Ahmad J., Butt F.A., Hussain Z., Ijaz K., Adnan M.** *Design and fabrication of a low-pass filter based on a microstrip resonator for microwave applications.* International Conference on Electrical, Computer, Communications and Mechatronics Engineering, ICECCME 2021.
225. **Nadeem M.W., Goh H.G., Ponnusamy V., Andonovic I., Khan M.A., Hussain M.** *A fusion-based machine learning approach for the prediction of the onset of diabetes.* Healthcare (Switzerland). 9,10.

226. **Muneer A., Taib S.M., Naseer S., Ali R.F., Aziz I.A.** *Data-driven deep learning-based attention mechanism for remaining useful life prediction: Case study application to turbofan engine analysis.* Electronics (Switzerland). 10,20.
227. **Khan Y.D., Khan N.S., Naseer S., Butt A.H.** *iSUMOK-PseAAC: Prediction of lysine sumoylation sites using statistical moments and Chou's PseAAC.* PeerJ. 9.
228. **Khalid M.F., Iman K., Ghafoor A., Saboor M., Ali A., Muaz U., Basharat A.R., Tahir T., Abubakar M., Akhter M.A., Nabi W., Vanderbauwhede W., Ahmad F., Wajid B., Chaudhary S.U.** *PERCEPTRON: An open-source GPU-accelerated proteoform identification pipeline for top-down proteomics.* Nucleic Acids Research. 49,W1.
229. **Hussain W., Rasool N., Khan Y.D.** *Insights into machine learning-based approaches for virtual screening in drug discovery: Existing strategies and streamlining through FP-CADD.* Current Drug Discovery Technologies. 18,4.
230. **Hafeez T., Saeed S.M.U., Arsalan A., Anwar S.M., Ashraf M.U., Alsubhi K.** *EEG in game user analysis: A framework for expertise classification during gameplay.* PLoS ONE. 16,6-Jun.
231. **Dildar M., Akram S., Irfan M., Khan H.U., Ramzan M., Mahmood A.R., Alsaiari S.A., Saeed A.H.M., Alraddadi M.O., Mahnashi M.H.** *Skin cancer detection: A review using deep learning techniques.* International Journal of Environmental Research and Public Health. 18,10.
232. **Shinan K., Alsubhi K., Alzahrani A., Ashraf M.U.** *Machine learning-based botnet detection in software-defined network: A systematic review.* Symmetry. 13,5.
233. **Mujahid A., Awan M.J., Yasin A., Mohammed M.A., DamaÅjeviÄlius R., MaskeliÄnas R., Abdulkareem K.H.** *Real-time hand gesture recognition based on deep learning YOLOv3 model.* Applied Sciences (Switzerland). 11,9.
234. **Nawaz M.S., Shoaib B., Ashraf M.A.** *Intelligent Cardiovascular Disease Prediction Empowered with Gradient Descent Optimization.* Heliyon. 7,5.
235. **Rauf A., Kiran A., Hassan M.T., Mahmood S., Mustafa G., Jeon M.** *Boosted prediction of antihypertensive peptides using deep learning.* Applied Sciences (Switzerland). 11,5.
236. **Malebarey S.J., Khan Y.D.** *Identification of Antimicrobial Peptides Using Chou's 5 Step Rule.* Computers, Materials and Continua. 67,3.

237. **Naseer S., Hussain W., Khan Y.D., Rasool N.** *Optimization of serine phosphorylation prediction in proteins by comparing human engineered features and deep representations.* Analytical Biochemistry. 615.
238. **Khan A.H., Hussain M., Malik M.K.** *ECG Images dataset of Cardiac and COVID-19 Patients.* Data in Brief. 34.
239. **Ali R.F., Muneer A., Dominic P.D.D., Taib S.M.** *Hyperledger Fabric Framework with 5G Network for Blockchain-based Security of IoT Smart Home Applications.* 2021 International Conference on Decision Aid Sciences and Application, DASA 2021.
240. **Ashraf M.A., Khan Y.D., Shoaib B., Khan M.A., Khan F., Whangbo T.** *β Lact-Pred: A Predictor Developed for Identification of Beta-Lactamases Using Statistical Moments and PseAAC via 5-Step Rule.* Computational Intelligence and Neuroscience. 2021.
241. **Farooq M.S., Abbas S.S., Abid A., Rasheed S.** *A Hybrid Algorithm for Face Detection to Avoid Racial Inequity Due to Dark Skin.* IEEE Access. 9.
242. **Allehaibi K., Daanial Khan Y., Khan S.A.** *ITAGPred: A Two-Level Prediction Model for Identification of Angiogenesis and Tumor Angiogenesis Biomarkers.* Applied Bionics and Biomechanics. 2021.
243. **Ahmad J., Imran M., Ali S.F., Adnan M., Ashraf S.R., Hussain Z., Shoaib M.** *Wind-to-hydrogen production potential for selected sites in Pakistan.* IEEE Access. 9.
244. **Minhas S., Khanum A., Alvi A., Riaz F., Khan S.A., Alsolami F., A Khan M.** *Early MCI-to-AD Conversion Prediction Using Future Value Forecasting of Multimodal Features.* Computational Intelligence and Neuroscience. 2021.
245. **Arif M., Kabir M., Ahmad S., Khan A., Ge F., Khelifi A., Yu D.** *DeepCPPred: a deep learning framework for the discrimination of cell-penetrating peptides and their uptake efficiencies.* IEEE/ACM Transactions on Computational Biology and Bioinformatics.
246. **Naseer S., Ali R.F., Khan Y.D., Dominic P.D.D.** *iGluK-Deep: computational identification of lysine glutarylation sites using deep neural networks with general pseudo amino acid compositions.* Journal of Biomolecular Structure and Dynamics.

247. **Omer U., Farooq M.S., Abid A.** *Introductory programming course: review and future implications.* PeerJ Computer Science. 7.
248. **Almagrabi A.O., Khan Y.D., Khan S.A.** *iPhosD-PseAAC: Identification of phosphoaspartate sites in proteins using statistical moments and PseAAC.* Biocell. 45,5.
249. **Tehseen R., Farooq M.S., Abid A.** *A Framework for the Prediction of Earthquake Using Federated Learning.* PeerJ Computer Science. 7.
250. **Ghazal T.M., Anam M., Hasan M.K., Hussain M., Farooq M.S., Ali H.M.A., Ahmad M., Soomro T.R.** *Hep-pred: Hepatitis C staging prediction using fine gaussian SVM.* Computers, Materials and Continua. 69,1.
251. **Ishaq K., Zin N.A.M., Rosdi F., Jehanghir M., Ishaq S., Abid A.** *Mobile-Assisted and Gamification-based Language Learning: A Systematic Literature Review.* PeerJ Computer Science. 7.
252. **Alotaibi F., Attique M., Khan Y.D.** *AntiFlamPred: An anti-inflammatory peptide predictor for drug selection strategies.* Computers, Materials and Continua. 69,1.
253. **Naseer S., Ali R.F., Fati S.M., Muneer A.** *INitroY-Deep: Computational Identification of Nitrotyrosine Sites to Supplement Carcinogenesis Studies Using Deep Learning.* IEEE Access. 9.
254. **Khan A.H., Hussain M., Malik M.K.** *Arrhythmia Classification Techniques Using Deep Neural Network.* Complexity. 2021.
255. **Malebary S.J., Khan R., Khan Y.D.** *ProtoPred: Advancing Oncological Research through Identification of Proto-Oncogene Proteins.* IEEE Access. 9.
256. **Khan A.H., Hussain M., Malik M.K.** *Cardiac disorder classification by electrocardiogram sensing using deep neural network.* Complexity. 2021.
257. **Fayyaz S., Sattar M.K., Waseem M., Ashraf M.U., Ahmad A., Hussain H.A., Alsubhi K.** *Solution of Combined Economic Emission Dispatch Problem Using Improved and Chaotic Population-Based Polar Bear Optimization Algorithm.* IEEE Access. 9.

258. **Naseer S., Ali R.F., Muneer A., Fati S.M.** *Iamidev-deep: Valine amidation site prediction in proteins using deep learning and pseudo amino acid compositions.* Symmetry. 13,4.
259. **Naseer S., Hussain W., Khan Y.D., Rasool N.** *Npalmitoyldeep-pseaac: A predictor of n-palmitoylation sites in proteins using deep representations of proteins and pseaac via modified 5-steps rule.* Current Bioinformatics. 16,2.
260. **Nadeem M.W., Goh H.G., Khan M.A., Hussain M., Mushtaq M.F., Ponnusamy V.A.P.** *Fusion-Based Machine Learning Architecture for Heart Disease Prediction.* Computers, Materials and Continua. 67,2.
261. **Shoaib B., Javed Y., Khan M.A., Ahmad F., Majeed R., Nawaz M.S., Ashraf M.A., Iqbal A., Idrees M.** *Prediction of time series empowered with a novel srekrls algorithm.* Computers, Materials and Continua. 67,2.
262. **Akmal M.A., Hussain W., Rasool N., Khan Y.D., Khan S.A., Chou K.-C.** *Using CHOU'S 5-Steps Rule to Predict O-Linked Serine Glycosylation Sites by Blending Position Relative Features and Statistical Moment.* IEEE/ACM Transactions on Computational Biology and Bioinformatics. 18,5.
263. **Anam M., Ponnusamy V., Hussain M., Nadeem M.W., Javed M., Goh H.G., Qadeer S.** *Osteoporosis prediction for trabecular bone using machine learning: a review.* Computers, Materials and Continua. 67,1

Department of Informatics & Systems

264. **Shahzad S.K., Ahmed D., Naqvi M.R., Mushtaq M.T., Iqbal M.W., Munir F.** *Ontology Driven Smart Health Service Integration.* Computer Methods and Programs in Biomedicine. 207.
265. **Ullah H., Lu D., Majeed Siddiqui A., Maqbool K., Iqbal S.** *Fluid model using recursive approach: Application to permeable slit with uniform reabsorption and velocity slip.* Results in Physics. 25.
266. **Ge F., Zhu Y.-H., Xu J., Muhammad A., Song J., Yu D.-J.** *MutTMPredictor: Robust and accurate cascade XGBoost classifier for prediction of mutations in transmembrane proteins.* Computational and Structural Biotechnology Journal. 19.

267. Zahid A.H., Ahmad M., Alkhayyat A., Arshad M.J., Shaban M.M.U., Soliman N.F., Algarni A.D. *Construction of Optimized Dynamic S-Boxes Based on a Cubic Modular Transform and the Sine Function.* IEEE Access. 9.
268. Sher A., Iqbal M.W., Shahzad S.K., Gul M., Mian N.A., Naqvi M.R., Khan B.A. *Blind and visually impaired user interface to solve accessibility problems.* Intelligent Automation and Soft Computing. 30,1.
269. Zahid A.H., Iliyasu A.M., Ahmad M., Shaban M.M.U., Arshad M.J., Alhadawi H.S., El-Latif A.A.A. *A Novel Construction of Dynamic S-Box with High Nonlinearity Using Heuristic Evolution.* IEEE Access. 9.
270. Zahid Z., Sattar M.U., Khan H.W., Zahid A., Faizan Riaz M. *A Smart Analysis and Visualization of the Power Forecasting in Pakistan.* International Journal of Computing and Digital Systems. 10,1.
271. Majid M., Hayat M.F., Khan F.Z., Ahmad M., Jhanjhi N.Z., Bhuiyan M.A.S., Masud M., Alzain M.A. *Ontology-based system for educational program counseling.* Intelligent Automation and Soft Computing. 30,1.

4. School of Social Sciences and Humanities

272. Asanjarani F., SzczygieÅ, M., Arif A. *The Persian Language Version of the Obsession with the COVID-19 Scale for Adolescents.* Frontiers in Psychiatry. 12.
273. Abid N., Ali R., Akhter M. *Exploring gender-based difference towards academic enablers scales among secondary school students of Pakistan.* Psychology in the Schools. 58,7.
274. Hussain B., Sheikh A.Z., Repper J., Stickley T., Timmons S., Shah M.H. *Recognizing service users' diversity: social identity narratives of British Pakistanis in a mental health context.* Journal of Mental Health Training, Education and Practice. 16, 3.
275. Zafar Sheikh A., Saleem Butt A., Hussain B., Timmons S. *Dodgy labour market dichotomy: the repercussions of sneaky labour intermediaries on employees' constitutional rights.* Labor History. 62,1.

Department of Education

276. **Asghar M.Z., Arif S., Barbera E., Seitamaa-Hakkarainen P., Kocayoruk E.** *Support through social media and online class participation to enhance psychological resilience.* International Journal of Environmental Research and Public Health. 18,22.
277. **Arif A., Ashraf F., Nusrat A.** *Stress and coping strategies in parents of children with special needs.* Journal of the Pakistan Medical Association. 71,5.
278. **Jafar S., Ashraf F., Arif A.** *Alexithymia and anxiety symptoms in Pakistani adolescents: A study of compounded directions.* Journal of the Pakistan Medical Association. 71,4.
279. **Ashraf F., Zareen G., Nusrat A., Arif A., Griffiths M.D.** *Correlates of Psychological Distress Among Pakistani Adults During the COVID-19 Outbreak: Parallel and Serial Mediation Analyses.* Frontiers in Psychology. 12.
280. **Asghar M.Z., Barbera E., Younas I.** *Mobile learning technology readiness and acceptance among pre-service teachers in Pakistan during the COVID-19 pandemic.* Knowledge Management and E-Learning. 13,1.
281. **Ahmad A., Hussain A., Mahmood A., Ahmad A., Ikram A., Yasmin S.** *Quantifying the Consequences of Perceived Stress in the Textile and Clothing Sector through Structural Equation Modelling.* Mathematical Problems in Engineering. 2021.

Department of Political Science & International Relations

282. **Mehmood U.** *Contribution of renewable energy towards environmental quality: The role of education to achieve sustainable development goals in G11 countries.* Renewable Energy. 178.
283. **Mehmood U.** *Transport energy consumption and carbon emissions: The role of urbanization towards environment in SAARC region.* Integrated Environmental Assessment and Management. 17,6.
284. **Mehmood U., Mansoor A.** *CO₂ emissions and the role of urbanization in East Asian and Pacific countries.* Environmental Science and Pollution Research. 28,41.
285. **Mehmood U., Mansoor A., Tariq S., Ul-Haq Z.** *The interactional role of globalization in tourism-CO₂*

- nexus in South Asian countries.* Environmental Science and Pollution Research. 28,21.
286. **Mehmood U.** *Renewable-nonrenewable energy: institutional quality and environment nexus in South Asian countries.* Environmental Science and Pollution Research. 28,21.
287. **Mehmood U.** *Globalization-driven CO₂ emissions in Singapore: an application of ARDL approach.* Environmental Science and Pollution Research. 28,9.
288. **Mehmood U., Tariq S., Ul-Haq Z., Meo M.S.** *Does the modifying role of institutional quality remains homogeneous in GDP-CO₂ emission nexus? New evidence from ARDL approach.* Environmental Science and Pollution Research. 28,8.

Department of Sociology

289. **Zaheer M., Hussain B., Fatima T., Edgley A.** *Consumers' opinions on the plastic bag ban and using eco-friendly bags for shopping in Pakistan.* Asian Journal for Public Opinion Research. 9,2.

5. School of Professional Advancement

290. **Younis H., Anwar M.W., Khan M.U.G., Sikandar A., Bajwa U.I.** *A New Sequential Forward Feature Selection (SFFS) Algorithm for Mining Best Topological and Biological Features to Predict Protein Complexes from Protein-Protein Interaction Networks (PPINs).* Interdisciplinary Sciences: Computational Life Sciences. 13,3.
291. **Erum H., Abid G., Anwar A., Ijaz M.F., Kee D.M.H.** *My family stands behind me: Moderated mediation model of family support and work engagement.* European Journal of Investigation in Health, Psychology and Education. 11,2.
292. **Munir F., Saeed I., Shuja A., Aslam F.** *Students' fear of covid-19, psychological motivation, cognitive problem-solving skills and social presence in online learning.* International Journal of Education and Practice. 9,1.

6. School of Professional Psychology

293. **Zahra S.T., Saleem S., Khurshid H.** *Mediation analysis of social deficits between self-criticism and aggression in adolescents.* Clinical Child Psychology and Psychiatry. 26,3.

294. **Zareen G., Ashraf F.** *Sub-clinical borderline personality disorder symptoms as predictor of suicidality and non-suicidal self-injury in young Pakistani females.* Journal of the Pakistan Medical Association. 71,2.
295. **Pervez A., Saleem S.** *Abuse and Violence Experienced by Gay Men living in Pakistani cultural context: An interpretative phenomenology analysis.* Journal of Gay and Lesbian Social Services.
296. **Saleem S., Karamat A., Zahra S.T., Subhan S., Mahmood Z.** *Mediating Role of Emotional Neglect and Self-Injurious Behaviors in the Relationship Between Family Satisfaction and Depression.* Family Journal.
297. **Ashraf F., Najam N., Jibeen T.** *Do metacognitions mediate the path from reading deficits to internalization and externalization behaviours in Pakistani adolescents?* Psychology, Health and Medicine.

Department of Applied Psychology

298. **Babar I., Dildar S., Mehmood H.** *Impingement of emotion reactivity to post-traumatic stress disorder among amputees.* Journal of the Pakistan Medical Association. 71,5.

Department of Clinical Psychology

299. **Saleem S., Renshaw K.D., Azhar M., Giff S.T., Mahmood Z.** *Interactive Effects of Perceived Parental Rearing Styles on Distress Tolerance and Psychological Distress in Pakistani University Students.* Journal of Adult Development. 28,4.
300. **Farooqi S., Jabeen A.** *Child with intellectual disability misdiagnosed as autism: A case study.* Journal of the Pakistan Medical Association. 71,8.
301. **Saleem S., Sultana S.** *Perceived social support and psychosocial problems in visually impaired: A mediating role of emotion-focused coping.* Journal of the Liaquat University of Medical and Health Sciences. 20,3.
302. **Ikram S., Rafiq M.** *Development and validation of a 'Cancer Pain Assessment Scale' in leukemia patients.* Anaesthesia, Pain and Intensive Care. 25,4.

303. **Bashir U., Rehman S., Zahra F.T.** *Drive for muscularity and tendencies of muscle dysmorphia among Pakistani bodybuilders: A prevalence study.* Journal of the Pakistan Medical Association. 71,5.
304. **Mushtaq R., Saleem S., Mahmood Z.** *The development of a adhd symptoms scale in young adults.* Journal of the Liaquat University of Medical and Health Sciences. 20,2.
305. **Mahmood Z., Saleem S., Subhan S., Jabeen A.** *Psychosocial reactions of Pakistani students towards COVID-19: A prevalence study.* Pakistan Journal of Medical Sciences. 37,2.
306. **Rana W., Mukhtar S., Mukhtar S., Mohiuddin G., Ehmad A.** *Psychological health of aging mental healthcare social workforce amidst coronavirus disease-2019 pandemic.* International Journal of Geriatric Psychiatry. 36,3.
307. **Zahra S.T., Saleem S.** *Family cohesion and depression in adolescents: A mediating role of self-confidence.* Journal of the Pakistan Medical Association. 71,2 B.
308. **Safdar S., Rafiq M.** *Mediating role of perceived social support on mental health problems in pre-operative patients.* Anaesthesia, Pain and Intensive Care. 25,1.
309. **Zahra S.T., Saleem S., Subhan S., Mahmood Z.** *Interpersonal skills scale: Development and validation in urbanized sample of adolescents.* Social Development. 30,1.
310. **Saleem S., Zahra S.T., Subhan S., Mahmood Z.** *Family Communication, Prosocial Behavior and Emotional/Behavioral Problems in a Sample of Pakistani Adolescents.* Family Journal.
311. **Qurat-Ul-Ain, Saleem S., Sarwar A., Mahmood Z.** *Psychosocial issues of hearing impaired school children: A psychometric approach.* Journal of the Pakistan Medical Association. 71,1 B.
312. **Khaliq T., Rafiq M.** *Coping strategies scale for myocardial infarction survivors.* Anaesthesia, Pain and Intensive Care. 25,3.
313. **Aslam S., Saleem S., Mahmood Z.** *Mental toughness and mental health problems in doctors: A mediating role of emotion regulation.* Khyber Medical University Journal. 13,1.

314. Zahra S.T., Saleem S., Subhan S., Mahmood Z. *Role of Social Comparison and Interpersonal Skills in Positive Parenting and Self-Esteem in Pakistani Adolescents: A Serial Mediation Analysis.* Family Journal.

7. School of Design and Textiles

315. Ali A., Uddin A., Jamil M.I., Shen X., Abbas M., Aziz T., Hussain M., Hussain S., Fang R., Guo L. *Kinetics and mechanistic investigations of ethylene-propylene copolymerizations catalyzed with symmetrical metallocene and activated by TIBA/borate.* Journal of Organometallic Chemistry. 949.
316. Irum S., Andleeb S., Sardar S., Mustafa Z., Ghaffar G., Mumtaz M., Mubasher M., Arslan M., Abbas M. *Chemical Synthesis and Antipseudomonal Activity of Al-Doped NiO Nanoparticles.* Frontiers in Materials. 8.
317. Hou H., Yang J., Liu G., Liu J., Abbas M., Hussain S., Shao H., Qiao G., Ghfar A., Ouladsmane M., Nazir M.T., Al-Anazy M.M. *Designing optically & utilization of thermopile chip with resonant cavity absorber structure as ir absorber.* Coatings. 11,3.
318. Naveed T., Babar A.A., Rashdi S.Y., Rehman F., Naeem M.A., Wang W.E.I., Abbas M., Ramzan M.B. *Dyeing and colorfastness properties of tencel fabric treated with natural dye extracted from orange peel.* Surface Review and Letters. 28,3.
319. Afzal A., Rajput A.W., Jamshaid H., Hussain S., Batool S.S., Ali U. *Investigation of frictional impact on polyester yarn during knitting [Analiza impactului de frecare asupra firului de poliester în timpul tricotării].* Industria Textila. 72,6.
320. Islam S.R., Hasan M.M., Shen X., Naveed T., Patoary M.K., Jiang J., Zareen A. *Sustainable decoloration of polluted water through cellulosic TiO₂ nano- crystalline material composite using sono synthesis.* Journal of the Textile Institute.
321. Awais M., Krzywinski S., Wölfling B.-M., Classen E. *A validation study on the thermal simulation of the human body-clothing-environment system through wear trials.* Journal of Engineered Fibers and Fabrics. 16.
322. Islam S.R., Alassod A., Naveed T., Dawit H., Ahmed K., Jiang J. *The study of hydrophobicity and oleophilicity of 3D weft-knitted spacer fabrics integrated with silica aerogels.* Journal of Industrial Textiles.

323. **Raza Z.A., Anwar F., Abid S.** *Sustainable antibacterial printing of cellulosic fabrics using an indigenous chitosan-based thickener with distinct natural dyes.* International Journal of Clothing Science and Technology. 33,6.

8. School of Engineering

324. **Mumtaz H., Farhan M., Amjad M., Riaz F., Kazim A.H., Sultan M., Farooq M., Mujtaba M.A., Hussain I., Imran M., Anwar S., El-Sherbeeny A.M., Siddique F.A., Armaković S., Ali Q., Chaudhry I.A., Pettinau A.** *Biomass waste utilization for adsorbent preparation in CO₂ capture and sustainable environment applications.* Sustainable Energy Technologies and Assessments. 46.
325. **Khan M.B., Kazim A.H., Farooq M., Javed K., Shabbir A., Zahid R., Fatima S., Danish M.R., Ali Q., Chaudhry I.A., Atabani A.E.** *Impact of HHO gas enrichment and high purity biodiesel on the performance of a 315 cc diesel engine.* International Journal of Hydrogen Energy. 46,37.
326. **Saeed M.A., Farooq M., Anwar A., Abbas M.M., Soudagar M.E.M., Siddiqui F.A., Shakir M.A., Nizami A.-S., Chaudhry I.A., Pettinau A., Andrews G.E., Phylaktou H.N.** *Flame propagation and burning characteristics of pulverized biomass for sustainable biofuel.* Biomass Conversion and Biorefinery. 11,2.
327. **Uddin G.M., Joyia F.M., Ghufran M., Khan S.A., Raza M.A., Faisal M., Arafat S.M., Zubair S.W.H., Jawad M., Zafar M.Q., Irfan M., Waseem B., Chaudhry I.A., Zeid I.** *Comparative performance analysis of cemented carbide, TiN, TiAlN, and PCD coated inserts in dry machining of Al 2024 alloy.* International Journal of Advanced Manufacturing Technology. 112,6-May.

Department of Civil Engineering

328. **Ahmad H., Elnemr A., Ali N., Hussain Q., Chaiyasarn K., Joyklad P.** *Finite element analysis of glass fiber-reinforced polymer-(Gfrp) reinforced continuous concrete beams.* Polymers. 13,24.
329. **Javid M.A., Khalid M., Ali N., Campisi T., Canale A., Suparp S.** *Analysis of pedestrians' perceptions about the design aspects of crossing facilities: A case in nizwa, Oman.* Infrastructures. 6,12.
330. **Joyklad P., Ali N., Rashid M.U., Hussain Q., Magbool H.M., Elnemr A., Chaiyasarn K.** *Strength enhancement of interlocking hollow brick masonry walls with low-cost mortar and wire mesh.* Infrastructures.6,12.

331. **Ashraf Javid M., Abdullah M., Ali N., Dias C.** *Structural equation modeling of public transport use with COVID-19 precautions: An extension of the norm activation model.* Transportation Research Interdisciplinary Perspectives. 12.
332. **Joyklad P., Ali N., Verre S., Magbool H.M., Elnemr A., Qureshi M.I., Hussain Q., Chaiyasarn K.** *Experimental study on the out-of-plane behavior of brick masonry walls strengthened with mortar and wire mesh: A pioneer study.* Infrastructures. 6,11.
333. **Khan M.U.A., Shukla S.K., Raja M.N.A.** *Soil-conduit interaction: an artificial intelligence application for reinforced concrete and corrugated steel conduits.* Neural Computing and Applications. 33,21.
334. **Chaiyasarn K., Ali N., Phuphasuwan P., Poovarodom N., Joyklad P., Mohamad H., Zhou M., Hussain Q.** *Flexural behavior of natural hybrid frp-strengthened rc beams and strain measurements using botda.* Polymers.13,20.
335. **Raja M.N.A., Shukla S.K.** *Predicting the settlement of geosynthetic-reinforced soil foundations using evolutionary artificial intelligence technique.* Geotextiles and Geomembranes. 49,5.
336. **Abdullah M., Ali N., Javid M.A., Dias C., Campisi T.** *Public transport versus solo travel mode choices during the COVID-19 pandemic: Self-reported evidence from a developing country.* Transportation Engineering. 5.
337. **Raja M.N.A., Shukla S.K.** *Experimental study on repeatedly loaded foundation soil strengthened by wraparound geosynthetic reinforcement technique.* Journal of Rock Mechanics and Geotechnical Engineering. 13,4.
338. **Raja M.N.A., Shukla S.K.** *Multivariate adaptive regression splines model for reinforced soil foundations.* Geosynthetics International. 28,4.
339. **Abdullah M., Ali N., Hussain S.A., Aslam A.B., Javid M.A.** *Measuring changes in travel behavior pattern due to COVID-19 in a developing country: A case study of Pakistan.* Transport Policy.108.
340. **Javid M.A., Ali N., Abdullah M., Shah S.A.H.** *Integrating the Norm Activation Model (NAM) Theory in Explaining Factors Affecting Drivers' Speeding Behaviour in Lahore.* KSCE Journal of Civil Engineering. 25,7.

341. **Abdullah M., Ali N., Dias C., Campisi T., Javid M.A.** *Exploring the traveler's intentions to use public transport during the covid-19 pandemic while complying with precautionary measures.* Applied Sciences (Switzerland). 11,8.
342. **Akhtar A.W., Israr J.** *Stabilization of leachate contaminated soils using industrial by-products.* Arabian Journal of Geosciences. 14,5.
343. **Abdullah M., Ali N., Shah S.A.H., Javid M.A., Campisi T.** *Service quality assessment of app-based demand-responsive public transit services in Lahore, Pakistan.* Applied Sciences (Switzerland). 11,4.
344. **Hameed A., Qureshi M.U., Rasool A.M., Khalid J., Qazi A., Rashid M.U., Mahmood Z.** *Analysis of Self-Compacted Concrete Using Fly Ash and Silica as Partial Cement Replacements.* Revista Romana de Materiale/ Romanian Journal of Materials. 51,4.
345. **Ali N.** *Evaluating sustainable urban transport systems: A Review study for the identification of smart mobility indicators.* Transactions on Transport Sciences. 12,2.
346. **Khadim N., Jaffar S.T.A., Ajwad A., Ilyas U.** *Effects of corruption on public infrastructure projects in developing countries: The case of Pakistan.* Jordan Journal of Civil Engineering. 15,4.
347. **Ashraf Javid M., Ali N., Abdullah M., Campisi T., Shah S.A.H.** *Travelers' Adoption Behavior towards Electric Vehicles in Lahore, Pakistan: An Extension of Norm Activation Model (NAM) Theory.* Journal of Advanced Transportation. 2021.
348. **Abdullah M., Dias C., Oguchi T.** *Road Crossing at Unmarked Mid-Block Locations: Exploring Pedestrians' Perception and Behavior.* Iranian Journal of Science and Technology - Transactions of Civil Engineering.
349. **Javid M.A., Ali N., Shah S.A.H., Abdullah M.** *Structural Equation Modeling of Drivers' Speeding Behavior in Lahore: Importance of Attitudes, Personality Traits, Behavioral Control, and Traffic Awareness.* Iranian Journal of Science and Technology - Transactions of Civil Engineering.
350. **Javid M.A., Shah S.A.H., Ali N., Abdullah M.** *Commuters' satisfaction with service quality of Airlift and Swvl bus services in Lahore.* Engineering and Applied Science Research. 48, 3.

351. **Raja M.N.A., Shukla S.K., Khan M.U.A.** *An intelligent approach for predicting the strength of geosynthetic-reinforced subgrade soil.* International Journal of Pavement Engineering.
352. **Ali N., Javid M.A., Hussain S.A., Rahim A.** *Understanding traffic congestion from stakeholders' perceptions in the central area of Lahore, Pakistan.* Journal of Applied Engineering Science. 19,1.
353. **Ali N., Abdullah M., Javid M.A.** *Accessibility-based approach: Shaping travel needs in pandemic situation for planners' perspectives.* Engineering Journal. 25,1.

Department of Electrical Engineering

354. **Illahi A., Bashir M., Alkanhal M.A.S., Khatoon S., Ghaffar A., Khan Y.** *Correction to: Electromagnetic waves scattering from a sphere of complex conjugate medium (Journal of the European Optical Society-Rapid Publications, (2019), 15, 1, (10), 10.1186/s41476-019-0107-2).* Journal of the European Optical Society-Rapid Publications. 17,1.
355. **Shakir M., Aslam S., Sarwar M.U., Adnan M., Khan M.R.** *Performance evaluation and design of 5G communication-based millimeter wave antenna.* Eurasip Journal on Wireless Communications and Networking. 2021,1.
356. **Butt F.A., Ritchie M., Griffiths H., Li W., Naqvi I.H.** *Crosstalk in modern software defined radio for the implementation of frequency modulated continuous wave radar.* IET Radar, Sonar and Navigation. 15,12.
357. **Hafeez M.A., Hazzazi M.M., Tariq H., Aljaedi A., Javed A., Alharbi A.R.** *A low-overhead counter measure against differential power analysis for AES block cipher.* Applied Sciences (Switzerland). 11,21.
358. **Adnan M., Ahmad J., Ali S.F., Imran M.** *A techno-economic analysis for power generation through wind energy: A case study of Pakistan.* Energy Reports.7.
359. **Tariq H., Rashid M., Hafeez M.A., Alotaibi S.S., Sinky M.H.** *Article a hybrid linear quadratic regulator controller for unmanned free-swimming submersible.* Applied Sciences (Switzerland). 11,19.
360. **Yazdan T., Humza M., Ali Q., Hussain A., Kwon B.-I.** *Design and analysis of a two-phase brushless DC motor with hybrid permanent magnet material for only-pull drive technique.* Electrical Engineering. 103,5.

361. **Javed U., Ijaz K., Jawad M., Ansari E.A., Shabbir N., KÄ%tt L., Husev O.** *Exploratory data analysis based short-term electrical load forecasting: A comprehensive analysis.* Energies. 14,17.
362. **Hafeez M.A., Rashid M., Tariq H., Abideen Z.U., Alotaibi S.S., Sinky M.H.** *Performance improvement of decision tree: A robust classifier using tabu search algorithm.* Applied Sciences (Switzerland). 11,15.
363. **Ullah I.** *Optical design of centered-receiver trough-based CPV system.* Journal of Photonics for Energy. 11,3.
364. **Ullah F., Miran S., Ahmad F., Ullah I.** *A low-cost three-dimensional reconstruction and monitoring system using digital fringe projection.* Transactions of the Canadian Society for Mechanical Engineering. 45,2.
365. **Ijaz K., Hussain Z.** *Sigma-delta modulators for analog-to-digital & digital-to-analog conversion: A review.* Proceedings of the Pakistan Academy of Sciences: Part A. 57,3.
366. **Baqir M.A., Farmani A., Raza M., Akhtar M.N., Hussain A.** *Engineering of metallic nanorod-based hyperbolic metamaterials for broadband applications operating in the infrared regime.* Applied Nanoscience (Switzerland). 11,1.
367. **Ahmad S., Nasir M., DÄ...browski J., Guerrero J.M.** *Improved topology of high voltage gain DC-DC converter with boost stages.* International Journal of Electronics Letters. 9,3.

Department of Industrial Engineering

368. **Ashraf W.M., Uddin G.M., Farooq M., Riaz F., Ahmad H.A., Kamal A.H., Anwar S., El-Sherbeeny A.M., Khan M.H., Hafeez N., Ali A., Samee A., Naeem M.A., Jamil A., Hassan H.A., Muneeb M., Chaudhary I.A., Sosnowski M., Krzywanski J.** *Construction of operational data-driven power curve of a generator by industry 4.0 data analytics.* Energies. 14,5.

Department of Mechanical Engineering

369. **Nabi F.G., Sundaraj K., Vijean V., Shafiq M., Planiappan R., Talib I., Rehman H.U.** *A Novel Design of Robotic hand Based on Bird Claw Model.* Journal of Physics: Conference Series. 1997,1.

370. Khalid M.Y., Al Rashid A., Abbas Z., Akram N., Arif Z.U., GarcÃa MÃjquez F.P. *Evaluation of Tensile Properties of Glass/Sisal and Glass/Jute Fibers Reinforced Hybrid Composites at Different Stacking Sequences.* Polymer (Korea). 45,3.
371. Arslan M., Kamal K., Sheikh M.F., Khan M.A., Ratlamwala T.A.H., Hussain G., Alkahtani M. *Tool health monitoring using airborne acoustic emission and convolutional neural networks: A deep learning approach.* Applied Sciences (Switzerland). 11,6.
372. Khalid M.Y., Imran R., Arif Z.U., Akram N., Arshad H., Rashid A.A., MÃjquez F.P.G. *Developments in chemical treatments, manufacturing techniques and potential applications of natural-fibers-based biodegradable composites.* Coatings.11,3.
373. Amjad A., Ramzan I., Hussain H.M. *Lean implementation in Pakistani process industries.* Proceedings of the International Conference on Industrial Engineering and Operations Management.
374. Sultan T., Ahmad Z., Hayat K., Chaudhry I.A. *Computational analysis of three lamp close conduit water disinfection UV reactor.* International Journal of Environmental Science and Technology.
375. Younis M.R., Farooq M., Imran M., Kazim A.H., Shabbir A. *Characterization of the viscosity of bio-oil produced by fast pyrolysis of the wheat straw.* Energy Sources, Part A: Recovery, Utilization and Environmental Effects. 43,15.

10. School of Governance and Society

376. Azhar A., Malik M.N., Muzaffar A. *Perceived needs versus actual needs: Humanitarian Emergency Settings Perceived Needs (HESPER) adaptation in post-flood need assessment in Pakistan.* International Journal of Disaster Risk Reduction. 59.

11. School of Health Sciences

377. Imran M., Saeed F., Hussain G., Imran A., Mehmood Z., Gondal T.A., El-Ghorab A., Ahmad I., Pezzani R., Arshad M.U., Bacha U., Shariarti M.A., Rauf A., Muhammad N., Shah Z.A., Zengin G., Islam S. *Myricetin: A comprehensive review on its biological potentials.* Food Science and Nutrition. 9,10.

378. **Mustafa F., Bacha U., Munir M., Tanveer A., Tahir H., Naseem M., Khan R., Afzal M.N.** *Variations in nutritional status of school going children in four rural districts of Punjab, Pakistan.* Progress in Nutrition. 23,1.
379. **Shahbaz M., Arshad R., Zahoor T., Liaqat A., Qaisrani T.B., Rafiq S., Javed M.S., Raza N., Murtaza S., Farooq U., Imran M., El-Ghorab A., Bacha U., Ahmad I., Gulzar N., Mehmood Z., Muzaffar R., Gondal T.A., Perveen R., Habib-Ur-Rehman, Shah S.A.M., Shah A.S., Akhtar M., Afzal M.I., Umer M.** *Preventive role of propolis against hyperglycemia and hyperlipidemia in Sprague dawley rats (Rattus norvegicus) animal modelling system.* Cellular and Molecular Biology. 67,1.
380. **Shahbaz M., Zahoor T., Arshad R., Rafiq S., Qaisrani T.B., Liaqat A., Javed M.S., Akbar Z., Raza N., Murtaza S., Farooq U., Imran M., El-Ghorab A., Bacha U., Ahmad I., Mehmood Z., Muzaffar R., Gondal T.A., Shah S.A.M., Shah A.S., Akhtar M., Afzal M.I., Umer M.** *Chemical profiling, HPLC characterization and in-vitro antioxidant potential of Pakistani propolis collected from peripheral region of Faisalabad.* Cellular and Molecular Biology. 67,1.
381. **Hamid A., Tanweer A.** *A Comparative Study on Proximate and Micronutrient Composition of Various Varieties of Rice Produced in Punjab, Pakistan.* Nurture. 15,1.
382. **Yousaf S., Bacha U., Zafar M., Raza A., Khan M.A., Bano S., Tauqueer Z., Mustafa F., Afzal M.N.** *Evaluation of Dietary Intake and Food Insecurity: A Case Study on Selected Households from Lahore, Pakistan.* Journal of Nutrition and Food Security. 6,4.
383. **Anum F., Naeem M.A., Shahiq U.-Z., Masood U.-R., Khurram S.S., Imran N.** *Design and evaluation of three-in-one matrix tablets for the treatment of ulcer associated with helicobacter pylori.* Latin American Journal of Pharmacy. 40,10.
384. **Asghar A., Aamir M.N., Shah M.A., Syed S.K., Munir R.** *Development, characterization and evaluation of in vitro anti-inflammatory activity of Withania coagulans extract and extract loaded microemulsion.* Pakistan Journal of Pharmaceutical Sciences. 34,1.

Department of Basic Medical Sciences

385. **Hussain M., Bakhsh H., Syed S.K., Ullah M.S., Alqahtani A.M., Alqahtani T., Aldahish A.A., Emran T.B., Rehman K.U., Janbaz K.H.** *The spasmolytic, bronchodilator, and vasodilator activities of parmotrema perlatum are explained by anti-muscarinic and calcium antagonistic mechanisms.* Molecules. 26,21.

386. Shaheen S., Javeed A., Sattar A., Ghafoor A., Syed S.K. *Effect of methanolic extract of Citrus limetta peel on cellular and humoral immune response in mice.* Pakistan Journal of Pharmaceutical Sciences. 34,5.
387. Khan I.A., Hussain M., Munawar S.H., Iqbal M.O., Arshad S., Manzoor A., Shah M.A., Abbas K., Shakeel W., Syed S.K. *Jasminum sambac: A potential candidate for drug development to cure cardiovascular ailments.* Molecules. 26,18.
388. Arshad M.S., Hussain I., Mahmood T., Hayat K., Majeed A., Imran I., Saeed H., Iqbal M.O., Uzair M., Rehman A.U., Ashraf W., Usman A., Syed S.K., Akbar M., Chaudhry M.O., Ramzan B., Islam M., Saleem M.U., Shakeel W., Iqbal I., Hashmi F., Rasool M.F. *A national survey to assess the covid-19 vaccine-related conspiracy beliefs, acceptability, preference, and willingness to pay among the general population of Pakistan.* Vaccines. 9,7.
389. Alvi Z., Akhtar M., Mahmood A., Ur-Rahman N., Nazir I., Sadaquat H., Ijaz M., Syed S.K., Waqas M.K., Wang Y. *Enhanced Oral Bioavailability of Epalrestat SBE7- β -CD Complex Loaded Chitosan Nanoparticles: Preparation, Characterization and in-vivo Pharmacokinetic Evaluation.* International Journal of Nanomedicine. 16.
390. Hussain M., Syed S.K., Fatima M., Shaukat S., Saadullah M., Alqahtani A.M., Alqahtani T., Emran T.B., Alamri A.H., Barkat M.Q., Wu X. *Acute Respiratory Distress Syndrome and COVID-19: A Literature Review.* Journal of Inflammation Research. 14.

Department of Medical Imaging

391. Murtaza G., Gillani Z.A., Mehmood S., Ur Rehman J., Khan E.U. *Optimisation of user-selectable volumetric modulated arc therapy (VMAT) planning parameters: VMAT arcs for prostate and head-and-neck cancers.* Journal of the Pakistan Medical Association. 71,4.

Department of Nutrition Science

392. Khan R., Shehzadi K., Bacha U., Afzal M.N., Tanweer A., Nasim M., Khan S. *Physico-Functional, Nutritional and Sensorial Features of Psyllium Husk Enriched Gluten-Free Oat Cookies.* Nurture. 15,1.

Department of Physical Medicine & Rehabilitation

393. **Naveed A., Fatima S.A., Riaz S., Awan S.S., Waqas M.S., Aslam S.** *Prevalence of leg pain and knee contractures in children having clubfoot.* Rawal Medical Journal. 46,3.
394. **Majeed A., Kayani S., Riaz S., Yasin M.M., Naeem A., Mansoor S.R.** *Comparative effectiveness of pectoralis minor stretching and rhomboids strengthening on resting position of scapula in healthy persons with rounded shoulder posture.* Rawal Medical Journal. 46,3.

12. School of Architecture and Planning

395. **Hameed R., Javed M., Nawaz M.S.** *An assessment of adoption of rainwater harvesting system in residential buildings in Lahore, Pakistan.* Urban Water Journal. 18,3.
396. **Asim M., Nadeem M., Saima G.** *Empowering communities to cope flood risk: Learning from flood affected community in Narowal district, Pakistan.* Disaster Advances. 14,9

Department of Architecture

397. **Kabir N., Hayat K., Hashmi A.** *An investigation of characteristics of Materials and Techniques used for the repair of Kala Burj, Lahore Fort, Lahore.* Pakistan Journal of Engineering and Applied Sciences. 29.

Department of City and Regional Planning

398. **Al-Rashid M.A., Shamsul Harumain Y.A., Goh H.C., Ahmad Z.** *Psychosocial Factors of Public Transport Users and Social Inclusion Implications among Older Women in Pakistan.* Journal of Urban Planning and Development. 147,4.
399. **Basbas S., Campisi T., Georgiadis G., Al-Rashid M.A., Tesoriere G.** *COVID-19 and public transport demand trends in Sicily: Analyzing external factors and governmental recommendations.* European Transport - Trasporti Europei. 83.

400. **Campisi T., Severino A., Al-Rashid M.A., Pau G.** *The development of the smart cities in the connected and autonomous vehicles (Cavs) era: From mobility patterns to scaling in cities.* Infrastructures. 6,7.
401. **Nadeem M., Azam M., Asim M., Al-Rashid M.A., Puan O.C., Campisi T.** *Does bus rapid transit system (BRTS) meet the citizens' mobility needs? Evaluating performance for the case of Multan, Pakistan.* Sustainability (Switzerland). 13,13.
402. **Nadeem M., Aziz A., Al-Rashid M.A., Tesoriere G., Asim M., Campisi T.** *Scaling the potential of compact city development: The case of Lahore, Pakistan.* Sustainability (Switzerland). 13,9.
403. **Al-Rashid M.A., Nadeem M., Aldosary A.S., Harumain Y.A.S., Arshad H.S.H.** *An Integrated Approach to Analysing the Urban Growth Patterns: The Case of Sialkot, Punjab, Pakistan.* International Review for Spatial Planning and Sustainable Development. 9,4.
404. **Al-Rashid M.A., Goh H.C., Harumain Y.A.S., Ali Z., Campisi T., Mahmood T.** *Psychosocial barriers of public transport use and social exclusion among older adults: Empirical evidence from Lahore, Pakistan.* International Journal of Environmental Research and Public Health. 18,1.

13. School of Science

405. **Erum N., Iqbal M.A., Sagar S., Nabi F.U.** *Effect of Hydrostatic pressure on structural, electronic, optical and mechanical properties of Lanthanum Oxide (La₂O₃).* Physica Scripta. 96,11.
406. **Fazil S., Shah H., Noreen M., Yar M., Farooq Khan A., Zaman Safi S., Yousef Alomar S., Fahad Alkhuriji A., Mualla Alharbi H., Sohail Afzal M.** *Evaluation of molecular mechanisms of heparin-induced angiogenesis, in human umbilical vein endothelial cells.* Journal of King Saud University – Science. 33,6.
407. **Saleemi A.S., Hafeez M., Saeed M., Abdullah A., Anis-Ur-rehman M., Lee S.-L.** *Substrate impact on MR characteristics of carbon nano films explored via AFM and Raman analysis.* Materials. 14,13.
408. **Riaz M.B., Atangana A., Jhangeer A., Tahir S.** *Soliton solutions, soliton-type solutions and rational solutions for the coupled nonlinear Schrödinger equation in magneto-optic waveguides.* European Physical Journal Plus. 136,2.

409. **Erum N., Iqbal M.A.** *Ab initio study of structural, opto-electronic, elastic, and thermal properties of KZNF3.* Canadian Journal of Physics. 99,7.

Department of Physics

410. **Afzal U., Ahmad N., Zafar Q., Aslam M.** *Fabrication of a surface type humidity sensor based on methyl green thin film, with the analysis of capacitance and resistance through neutrosophic statistics.* RSC Advances. 11,61.
411. **Ilyas S., Sultana I., Nasar R., Hanif I., Jafri S.H.M., Naveed-Ul- Haq M., Razaq A.** *Tuning of electrical conduction properties of natural fibers and TiO₂ based flexible paper composite sheets by electrodeposition of metallic nanolayers.* Ceramics International. 47,20.
412. **Munir J., Jamil M., Jbara A.S., Fatima K., Ain Q., Ullah H., Yousaf M.** *Spin-polarized electromagnetic and optical response of full-Heusler Co₂VZ (Z = Al, Be) alloys for spintronic application.* European Physical Journal Plus. 136,10.
413. **Akram R., Yaseen M., Farooq Z., Rauf A., Almohaimeed Z.M., Ikram M., Zafar Q.** *Capacitive and conductometric type dual-mode relative humidity sensor based on 5,10,15,20-tetra phenyl porphyrinato nickel (II) (TPPNi).* Polymers. 13,19.
414. **Munir J., Jbara A.S., Ain Q., Fatima K., Noor N.A., Naeem H., Jamil M., Yousaf M.** *An insight into the electronic, optical and transport properties of promising Zintl-phase BaMg₂P₂.* Physica B: Condensed Matter. 618.
415. **Shaheen S., Iqbal A., Ikram M., Ul-Ain K., Naz S., Ul-Hamid A., Shahzadi A., Haider A., Nabgan W., Haider J.** *Effective Disposal of Methylene Blue and Bactericidal Benefits of Using GO-Doped MnO₂Nanorods Synthesized through One-Pot Synthesis.* ACS Omega. 6,38.
416. **Ali H., Soleimani H., Yahya N., Khodapanah L., Kozlowski G., Sabet M., Demiral B.M.R., Adebayo L.L., Hussain T.** *Experimental investigation and two-phase flow simulation of oil and nanofluids on micro CT images of sandstone for wettability alteration of the system.* Journal of Petroleum Science and Engineering. 204.
417. **Qayyum H.A., Al-Kuhaili M.F., Hussain T., Durrani S.M.A.** *Recovering the optical transitions in tin oxide thin films at room temperature using electroreflectance.* Superlattices and Microstructures. 156.

418. **Alvi M.Z.-U.-U., Sattar M., Cheema F.A., Awan U.A., Aftab M.N., Shah Z.H., Afzal M.S.** *COVID-19 and emergence of antimicrobial resistance: A most neglected aspect of health emergency in Pakistan.* Diabetes and Metabolic Syndrome: Clinical Research and Reviews. 15,4.
419. **Farooq Z., Yaseen M., Zulfqar M., Mahmood M.H.R., Akram R., Qadir K.W., Zafar Q.** *Investigation of relative humidity-sensing performance of capacitive and resistive type sensor based on TDTBPPNi metalloporphyrin dielectric layer.* Bulletin of Materials Science. 44,2.
420. **Asghar H., McInerney J.G.** *Control of timing stability, and suppression in delayed feedback induced frequency-fluctuations by means of power split ratio and delay phase-dependent dual-loop optical feedback.* Applied Sciences (Switzerland). 11,10.
421. **Imran Jamil M., Sohail Gilani S.M., Wasif A., Khan A.S., Awan A.** *J/ψ - J/ψ scattering cross sections of quadratic and Cornell potentials.* Chinese Physics C. 45,2.
422. **Adrees M., Khan Z.S., Hafeez M., Rizwan M., Hussain K., Asrar M., Alyemeni M.N., Wijaya L., Ali S.** *Foliar exposure of zinc oxide nanoparticles improved the growth of wheat (*Triticum aestivum L.*) and decreased cadmium concentration in grains under simultaneous Cd and water deficient stress.* Ecotoxicology and Environmental Safety. 208.
423. **Makhdoom M., Azam S., Alrebdi T.A., Khan S.A., Iqbal A., Kanoun M.B., Goumri-Said S.** *Rb and Cs doping effects in sodium borohydride: Density functional theory for hydrogen (H_2) storage purpose.* International Journal of Hydrogen Energy. 46,2.
424. **Makhdoom M., Azam S., Waheed A., Kalsoom A., Iqbal A., Ul Haq B., Ahmad S.S., Zada I., Khan S.** *Ab Initio Studies of Li_3AlH_6 Materials for Hydrogen Storage Purposes and Optoelectronic Applications.* International Journal of Electrochemical Science. 16.
425. **Naseer S., Abbas M., Emadifar H., Bi S.B., Nazir T., Shah Z.H.** *A Class of Sextic Trigonometric Bézier Curve with Two Shape Parameters.* Journal of Mathematics. 2021.

Department of Mathematics

426. **Jhangeer A., Faridi W.A., Asjad M.I., Akgul A.** *Analytical study of soliton solutions for an improved perturbed Schrödinger equation with Kerr law non-linearity in non-linear optics by an expansion algorithm.* Partial Differential Equations in Applied Mathematics. 4.

427. **Zaman S., Alam J., Jabeen A.** *Super Face Magic Labeling of Subdivided Prism Graph.* Jordan Journal of Mathematics and Statistics. 14,4.
428. **Asjad M.I., Sarwar N., Ali B., Hussain S., Sitthiwiratham T., Reunsumrit J.** *Impact of bioconvection and chemical reaction on MHD nanofluid flow due to exponential stretching sheet.* Symmetry. 13,12.
429. **Riaz M.B., Rehman A.-U., Awrejcewicz J., Akgul A.** *Power law kernel analysis of MHD Maxwell fluid with ramped boundary conditions: Transport phenomena solutions based on special functions.* Fractal and Fractional. 5,4.
430. **Javaid M., Aslam M.K., Asjad M.I., Almutairi B.N., Inc M., Almohsen B.** *Lower and upper bounds of fractional metric dimension of connected networks.* Fractal and Fractional. 5,4.
431. **Riaz M.B., Awrejcewicz J., Rehman A.U.** *Functional effects of permeability on oldroyd-B fluid under magnetization: A comparison of slipping and non-slipping solutions.* Applied Sciences (Switzerland). 11,23.
432. **Ali A., Asjad M.I., Usman M., Inc M.** *Numerical solutions of a heat transfer for fractional Maxwell fluid flow with water based clay nanoparticles; a finite difference approach.* Fractal and Fractional. 5,4.
433. **Javed F., Riaz M.B., Iftikhar N., Awrejcewicz J., Akgul A.** *Heat and mass transfer impact on differential type nanofluid with carbon nanotubes: A study of fractional order system.* Fractal and Fractional. 5,4.
434. **Zhou M., Saleem N., Liu X., Fulga A., de Hierro A.F.R.L.** *A new approach to proinov-type fixed-point results in non-archimedean fuzzy metric spaces.* Mathematics. 9,23.
435. **Cao Y., Dhahad H.A., Jarad F., Sharma K., Rajhi A.A., El-Shafay A.S., Rashidi S., Rezapour S., Najati S.A., Aly A.A., Alghtani A.H., Riaz M.B.** *Extracting novel categories of analytical wave solutions to a nonlinear Schrödinger equation of unstable type.* Results in Physics. 31.
436. **Riaz M.B., Awrejcewicz J., Rehman A.U., Abbas M.** *Special functions-based solutions of unsteady convective flow of a MHD Maxwell fluid for ramped wall temperature and velocity with concentration.* Advances in Difference Equations. 2021,1.

437. **Iftikhar N., Javed F., Riaz M.B., Abbas M., Alsharif A.M., Hamed Y.S.** *Role of Newtonian heating on a Maxwell fluid via special functions: memory impact of local and nonlocal kernels.* Advances in Difference Equations. 2021, 1.
438. **Abdal S., Habib U., Siddique I., Akgul A., Ali B.** *Attribution of Multi-slips and Bioconvection for Micropolar Nanofluids Transpiration Through Porous Medium over an Extending Sheet with PST and PHF Conditions.* International Journal of Applied and Computational Mathematics. 7, 6.
439. **Cao Y., Alamri S., Rajhi A.A., Anqi A.E., Riaz M.B., Elagan S.K., Jawa T.M.** *A novel piece-wise approach to modeling interactions in a food web model.* Results in Physics. 31.
440. **Ali B., Siddique I., Shafiq A., Abdal S., Khan I., Khan A.** *Magnetohydrodynamic mass and heat transport over a stretching sheet in a rotating nanofluid with binary chemical reaction, non-fourier heat flux, and swimming microorganisms.* Case Studies in Thermal Engineering. 28.
441. **Rehman H.U., Ullah N., Imran M.A., Akgul A.** *Optical Solitons of Two Non-linear Models in Birefringent Fibres Using Extended Direct Algebraic Method.* International Journal of Applied and Computational Mathematics. 7, 6.
442. **Asjad M.I., Basit A., Ahmad H., Askar S., Botmart T.** *Unsteady thermal transport flow of Maxwell clay nanoparticles with generalized Mittag-Leffler kernel of Prabhakar's kind.* Case Studies in Thermal Engineering. 28.
443. **Riaz M.B., Awrejcewicz J., Jhangeer A., Junaid-U-rehman M.** *A variety of new traveling wave packets and conservation laws to the nonlinear low-pass electrical transmission lines via lie analysis.* Fractal and Fractional. 5, 4.
444. **Iftikhar N., Riaz M.B., Awrejcewicz J., Akgul A.** *Effect of magnetic field with parabolic motion on fractional second grade fluid.* Fractal and Fractional. 5, 4.
445. **Ali B., Shafiq A., Siddique I., Al-Mdallal Q., Jarad F.** *Significance of suction/injection, gravity modulation, thermal radiation, and magnetohydrodynamic on dynamics of micropolar fluid subject to an inclined sheet via finite element approach.* Case Studies in Thermal Engineering. 28.
446. **Abdal S., Siddique I., Alshomrani A.S., Jarad F., Ud Din I.S., Afzal S.** *Significance of chemical reaction with activation energy for Riga wedge flow of tangent hyperbolic nanofluid in existence of heat source.* Case Studies in Thermal Engineering. 28.

447. Ali L., Liu X., Ali B., Abdal S., Zulqarnain R.M. *Finite element analysis of unsteady MHD Blasius and Sakiadis flow with radiation and thermal convection using Cattaneo-Christov heat flux model.* Physica Scripta. 96,12.
448. Asjad M.I., Ali R., Iqbal A., Muhammad T., Chu Y.-M. *Application of water based drilling clay-nanoparticles in heat transfer of fractional Maxwell fluid over an infinite flat surface.* Scientific Reports. 11,1.
449. Riaz M.B., Abro K.A., Abualnaja K.M., Akgul A., Rehman A.U., Abbas M., Hamed Y.S. *Exact solutions involving special functions for unsteady convective flow of magnetohydrodynamic second grade fluid with ramped conditions.* Advances in Difference Equations. 2021,1.
450. Afzal S., Siddique I., Jarad F., Ali R., Abdal S., Hussain S. *Significance of double diffusion for unsteady Carreau micropolar nanofluid transportation across an extending sheet with thermo-radiation and uniform heat source.* Case Studies in Thermal Engineering. 28.
451. Asgir M., Zafar A.A., Alsharif A.M., Riaz M.B., Abbas M. *Special function form exact solutions for Jeffery fluid: an application of power law kernel.* Advances in Difference Equations. 2021,1.
452. Bashir S., Saleem N., Aydi H., Husnine S.M., Rwaily A.A. *Developments of some new results that weaken certain conditions of fractional type differential equations.* Advances in Difference Equations. 2021,1.
453. Zahid M., Asjad M.I., Hussain S., Akgul A. *Nonlinear magnetohydrodynamic flow of nanofluids across a porous matrix over an extending sheet with mass transpiration and bioconvection.* Heat Transfer. 50,8.
454. Zahid M., Zafar M., Siddique I., Mohammed M.A.Y., Rana M.A., Khan W.A. *Modeling of an isothermal flow of a magnetohydrodynamic, viscoplastic fluid during forward roll coating process.* Alexandria Engineering Journal. 60,6.
455. Islam T., Alam M.N., Asjad M.I., Parveen N., Chu Y.-M. *Heatline visualization of MHD natural convection heat transfer of nanofluid in a prismatic enclosure.* Scientific Reports. 11,1.
456. Yaseen M., Abbas M., Riaz M.B. *A collocation method based on cubic trigonometric B-splines for the numerical simulation of the time-fractional diffusion equation.* Advances in Difference Equations. 2021,1.

457. **Abdal S., Hussain S., Siddique I., Ahmadian A., Ferrara M.** *On solution existence of MHD Casson nanofluid transportation across an extending cylinder through porous media and evaluation of priori bounds.* Scientific Reports. 11,1.
458. **Riaz M.B., Siddiqui I., Saeed S.T., Atangana A.** *MHD Oldroyd-B Fluid with Slip Condition in view of Local and Nonlocal Kernels.* Journal of Applied and Computational Mechanics. 7,1.
459. **Zafar A.A., Awrejcewicz J., Mazur O., Riaz M.B.** *Study of composite fractional relaxation differential equation using fractional operators with and without singular kernels and special functions.* Advances in Difference Equations. 2021,1.
460. **Riaz M.B., Saeed S.T., Baleanu D.** *Role of Magnetic field on the Dynamical Analysis of Second Grade Fluid: An Optimal Solution subject to Non-integer Differentiable Operators.* Journal of Applied and Computational Mechanics. 7,1.
461. **Ali M.A., Abbas M., Budak H., Agarwal P., Murtaza G., Chu Y.-M.** *New quantum boundaries for quantum Simpson's and quantum Newton's type inequalities for preinvex functions.* Advances in Difference Equations. 2021,1.
462. **Gul T., Kashifullah, Bilal M., Alghamdi W., Asjad M.I., Abdeljawad T.** *Hybrid nanofluid flow within the conical gap between the cone and the surface of a rotating disk.* Scientific Reports. 11,1.
463. **Iftikha N., Baleanu D., Riaz M.B., Husnine S.M.** *Heat and Mass Transfer of Natural Convective Flow with Slanted Magnetic Field via Fractional Operators.* Journal of Applied and Computational Mechanics. 7,1.
464. **Asjad M.I., Rehman H.U., Ishfaq Z., Awrejcewicz J., Akgul A., Riaz M.B.** *On Soliton Solutions of Perturbed Boussinesq and KdV-Caudery-Dodd-Gibbon Equations.* Coatings. 11,11.
465. **Khan A.A., Ali B.** *Completeness of b -metric spaces and best proximity points of nonself quasi-contractions.* Symmetry. 13,11.
466. **Ali S., Waheed M.H., Asjad M.I., Khan K.A., Sitthiwirathan T., Promsakon C.** *The Sharma-mittal model's implications on FRW universe in Chern-Simons gravity.* Universe. 7,11.

467. Sarwar N., Asjad M.I., Sitthiwirattham T., Patanarapeelert N., Muhammad T. A prabhakar fractional approach for the convection flow of casson fluid across an oscillating surface based on the generalized Fourier law. *Symmetry.* 13,11.
468. Zubair T., Asjad M.I., Usman M., Awrejcewicz J. Higher-dimensional fractional order modelling for plasma particles with partial slip boundaries: A numerical study. *Nanomaterials.* 11,11.
469. Asjad M.I., Ullah N., Rehman H.U., Inc M. Construction of optical solitons of magneto-optic waveguides with anti-cubic law nonlinearity. *Optical and Quantum Electronics.* 53,11.
470. Adnan, Ahmad S., Ullah A., Riaz M.B., Ali A., Akgul A., Partohaghghi M. Complex dynamics of multi strain TB model under nonlocal and nonsingular fractal fractional operator. *Results in Physics.* 30.
471. Asjad M.I., Basit A., Iqbal A., Shah N.A. Advances in transport phenomena with nanoparticles and generalized thermal process for vertical plate. *Physica Scripta.* 96,11.
472. Rehman A.U., Riaz M.B., Akgul A., Saeed S.T., Baleanu D. Heat and mass transport impact on MHD second-grade fluid: A comparative analysis of fractional operators. *Heat Transfer.* 50,7.
473. Aleem M., Asjad M.I., Akgul A. Heat transfer analysis of magnetohydrodynamic Casson fluid through a porous medium with constant proportional Caputo derivative. *Heat Transfer.* 50,7.
474. Mardan S.A., Noureen I., Khalid A. Charged anisotropic compact star core-envelope model with polytropic core and linear envelope. *European Physical Journal C.* 81,10.
475. Sial I.B., Ali M.A., Murtaza G., Ntouyas S.K., Soontharanon J., Sitthiwirattham T. On some new inequalities of hermite-hadamard midpoint and trapezoid type for preinvex functions in (P, q) -calculus. *Symmetry.* 13,10.
476. Saeed S.T., Riaz M.B., Awrejcewicz J., Ahmad H. Exact symmetric solutions of MHD casson fluid using chemically reactive flow with generalized boundary conditions. *Energies.* 14,19.
477. Goshi N., Zafar S., Rashid T., Guirao J.L.G. A combinatorial approach to the computation of the fractional edge dimension of graphs. *Mathematics.* 9,19.

478. **Habib S., Azam M.K., Asjad M.I., Akgul A.** *Approximate Solutions for Higher Order Linear and Nonlinear Boundary Value Problems.* International Journal of Applied and Computational Mathematics. 7,5.
479. **Hussain M.T., Zafar Z.U.A., Zhang C.** *On dualization of a result of Bryce and Cossey theory.* Acta Mathematica Hungarica. 165,1.
480. **Jhangeer A., Muddassar M., Ur Rehman Z., Awrejcewicz J., Riaz M.B.** *Multistability and dynamic behavior of non-linear wave solutions for analytical kink periodic and quasi-periodic wave structures in plasma physics.* Results in Physics. 29.
481. **Habib U., Abdal S., Siddique I., Ali R.** *A comparative study on micropolar, Williamson, Maxwell nanofluids flow due to a stretching surface in the presence of bioconvection, double diffusion and activation energy.* International Communications in Heat and Mass Transfer. 127.
482. **Riaz M.B., Saeed S.T.** *Comprehensive analysis of integer-order, caputo-fabrizio (CF) and atangana-baleanu (ABC) fractional time derivative for MHD oldroyd-b fluid with slip effect and time dependent boundary condition.* Discrete and Continuous Dynamical Systems - Series S. 14,10.
483. **Habib D., Abdal S., Ali R., Baleanu D., Siddique I.** *On bioconvection and mass transpiration of micropolar nanofluid dynamics due to an extending surface in existence of thermal radiations.* Case Studies in Thermal Engineering. 27.
484. **Faridi W.A., Asjad M.I., Jhangeer A.** *The fractional analysis of fusion and fission process in plasma physics.* Physica Scripta. 96,10.
485. **Sindhu M.S., Rashid T., Kashif A.** *An Approach to Select the Investment Based on Bipolar Picture Fuzzy Sets.* International Journal of Fuzzy Systems. 23,7.
486. **Akgul A., Sajid Iqbal M., Fatima U., Ahmed N., Iqbal Z., Raza A., Rafiq M., Rehman M.A.-U.** *Optimal existence of fractional order computer virus epidemic model and numerical simulations.* Mathematical Methods in the Applied Sciences. 44,13.
487. **Nazeer I., Rashid T., Hussain M.T.** *Cyclic connectivity index of fuzzy incidence graphs with applications in the highway system of different cities to minimize road accidents and in a network of different computers.* PLoS ONE. 16,9-Sep.

488. **Riaz M.B., Awrejcewicz J., Rehman A.-U., Akgul A.** *Thermophysical investigation of oldroyd-b fluid with functional effects of permeability: Memory effect study using non-singular kernel derivative approach.* Fractal and Fractional. 5,3.
489. **Riaz M.B., Awrejcewicz J., Jhangeer A.** *Optical solitons with beta and m-truncated derivatives in nonlinear negative-index materials with bohm potential.* Materials. 14,18.
490. **Khan S., Mardan S.A., Rehman M.A.** *Study of generalized cylindrical polytropes with complexity factor.* European Physical Journal C. 81,9.
491. **Sitthiwirathanam T., Murtaza G., Ali M.A., Ntouyas S.K., Adeel M., Soontharanon J.** *On some new trapezoidal type inequalities for twice (P, q) differentiable convex functions in post-quantum calculus.* Symmetry. 13,9.
492. **Wang F., Asjad M.I., Ur Rehman S., Ali B., Hussain S., Gia T.N., Muhammad T.** *MHD Williamson nanofluid flow over a slender elastic sheet of irregular thickness in the presence of bioconvection.* Nanomaterials. 11,9.
493. **Asjad M.I., Sarwar N., Hafeez M.B., Sumelka W., Muhammad T.** *Advancement of non-newtonian fluid with hybrid nanoparticles in a convective channel and prabhakar's fractional derivative-Analytical solution.* Fractal and Fractional. 5,3.
494. **Iqbal Z., Macías-Díaz J.E., Ahmed N., Aziz-ul Rehman M., Raza A., Rafiq M.** *A SEIR model with memory effects for the propagation of Ebola-like infections and its dynamically consistent approximation.* Computer Methods and Programs in Biomedicine. 209.
495. **Siddique I., Jaradat M.M.M., Zafar A., Bukht Mehdi K., Osman M.S.** *Exact traveling wave solutions for two prolific conformable M-Fractional differential equations via three diverse approaches.* Results in Physics. 28.
496. **Wang F., Asjad M.I., Zahid M., Iqbal A., Ahmad H., Alsulami M.D.** *Unsteady thermal transport flow of Casson nanofluids with generalized Mittag-Leffler kernel of Prabhakar's type.* Journal of Materials Research and Technology. 14.
497. **Manzoor R., Shahid W.** *Evolution of cluster of stars in f(R) gravity.* Physics of the Dark Universe. 33.

498. **Ali B., Ali L., Abdal S., Asjad M.I.** *Significance of Brownian motion and thermophoresis influence on dynamics of Reiner-Rivlin fluid over a disk with non-Fourier heat flux theory and gyrotactic microorganisms: A Numerical approach.* Physica Scripta. 96,9.
499. **Sarwar S., Nazar M., Imran M.A.** *Influence of slip over an exponentially moving vertical plate with Caputo-time fractional derivative.* Journal of Thermal Analysis and Calorimetry. 145,5.
500. **Siddique I., Tlili I., Bukhari S.M., Mahsud Y.** *Heat transfer analysis in convective flows of fractional second grade fluids with Caputo-Fabrizio and Atangana-Baleanu derivative subject to Newtonion heating.* Mechanics of Time-Dependent Materials. 25,3.
501. **Lael F., Saleem N., Guran L., Bota M.F.** *Nadler's theorem on incomplete modular space.* Mathematics. 9,16.
502. **Ullah S., Zhang L., Sardar M.W., Hussain M.T.** *τ -Access policy: Attribute-based encryption scheme for social network based data trading.* China Communications. 18,8.
503. **Asjad M.I., Faridi W.A., Abualnaja K.M., Jhangeer A., Abu-Zinadah H., Ahmad H.** *The fractional comparative study of the non-linear directional couplers in non-linear optics.* Results in Physics. 27.
504. **Yao S.-W., Faridi W.A., Asjad M.I., Jhangeer A., Inc M.** *A mathematical modelling of a Atherosclerosis intimation with Atangana-Baleanu fractional derivative in terms of memory function.* Results in Physics. 27.
505. **Yahya A.U., Salamat N., Huang W.-H., Siddique I., Abdal S., Hussain S.** *Thermal characteristics for the flow of Williamson hybrid nanofluid ($MoS_2 + ZnO$) based with engine oil over a stretched sheet.* Case Studies in Thermal Engineering. 26.
506. **Ikram M.D., Asjad M.I., Akgul A., Baleanu D.** *Effects of hybrid nanofluid on novel fractional model of heat transfer flow between two parallel plates.* Alexandria Engineering Journal. 60,4.
507. **Nazeer I., Rashid T., Hussain M.T., Guirao J.L.G.** *Domination in join of fuzzy incidence graphs using strong pairs with application in trading system of different countries.* Symmetry. 13,7.
508. **Guirao J.L.G., Iqbal M., Bashir Z., Rashid T.** *A study on fuzzy order bounded linear operators in fuzzy riesz spaces.* Mathematics. 9,13.

509. **Aziz-Ur-Rehman, Riaz M.B., Awrejcewicz J., Baleanu D.** *Exact solutions for thermomagnetized unsteady non-singularized Jeffrey fluid: Effects of ramped velocity, concentration with Newtonian heating.* Results in Physics. 26.
510. **Naseem A., Rehman M.A., Abdeljawad T., Chu Y.-M.** *Some engineering applications of newly constructed algorithms for one-dimensional non-linear equations and their fractal behavior.* Journal of King Saud University – Science. 33,5.
511. **Shahid N., Aziz-ur Rehman M., Khalid A., Fatima U., Sumbal Shaikh T., Ahmed N., Alotaibi H., Rafiq M., Khan I., Sooppy Nisar K.** *Mathematical analysis and numerical investigation of advection-reaction-diffusion computer virus model.* Results in Physics. 26.
512. **Jhangeer A., Munawar M., Atangana A., Bilal Riaz M.** *Analysis of electron acoustic waves interaction in the presence of homogeneous unmagnetized collision-free plasma.* Physica Scripta. 96,7.
513. **Saleem M., Chaudhry Q.A., Almatroud A.O.** *One-parameter lie scaling study of carreau fluid flow with thermal radiation effects.* Chaos, Solitons and Fractals. 148.
514. **Alkhaldi A.H., Aslam M.K., Javaid M., Alanazi A.M.** *Bounds of fractional metric dimension and applications with grid-related networks.* Mathematics. 9,12.
515. **Asjad M.I., Rehman S.U., Ahmadian A., Salahshour S., Salimi M.** *First solution of fractional bioconvection with power law kernel for a vertical surface.* Mathematics. 9,12.
516. **Abdal S., Alhumade H., Siddique I., Alam M.M., Ahmad I., Hussain S.** *Radiation and multiple slip effects on magnetohydrodynamic bioconvection flow of micropolar based nanofluid over a stretching surface.* Applied Sciences (Switzerland). 11,11.
517. **Saleem M., Jawad A., Manzoor R., Tufail H.** *Thermal stability of Chaplygin gas models and Chevallier-Polarski-Linder parametrization.* International Journal of Modern Physics D. 30,8.
518. **Rehman H.U., Ullah N., Imran M.A.** *Exact solutions of Kudryashov-Sinelshchikov equation using two analytical techniques.* European Physical Journal Plus. 136,6.

519. **Ali B., Siddique I., Khan I., Masood B., Hussain S.** *Magnetic dipole and thermal radiation effects on hybrid base micropolar CNTs flow over a stretching sheet: Finite element method approach.* Results in Physics. 25.
520. **Rehman S.U., Mariam A., Ullah A., Asjad M.I., Bajuri M.Y., Pansera B.A., Ahmadian A.** *Numerical computation of buoyancy and radiation effects on MHD micropolar nanofluid flow over a stretching/shrinking sheet with heat source.* Case Studies in Thermal Engineering. 25.
521. **Haider M.I., Asjad M.I., Ali R., Ghaemi F., Ahmadian A.** *Heat transfer analysis of micropolar hybrid nanofluid over an oscillating vertical plate and Newtonian heating.* Journal of Thermal Analysis and Calorimetry. 144,6.
522. **Chu Y.-M., Ikram M.D., Asjad M.I., Ahmadian A., Ghaemi F.** *Influence of hybrid nanofluids and heat generation on coupled heat and mass transfer flow of a viscous fluid with novel fractional derivative.* Journal of Thermal Analysis and Calorimetry. 144,6.
523. **Rafique K., Imran M.A., Anwar M.I., Misiran M., Ahmadian A.** *Energy and mass transport of Casson nanofluid flow over a slanted permeable inclined surface.* Journal of Thermal Analysis and Calorimetry. 144,6.
524. **Ur Rehman H., Asjad Imran M., Ullah N., Akgul A.** *On solutions of the Newell-Whitehead-Segel equation and Zeldovich equation.* Mathematical Methods in the Applied Sciences. 44,8.
525. **Ur Rehman H., Asjad Imran M., Bibi M., Riaz M., Akgul A.** *New soliton solutions of the 2D-chiral nonlinear Schrodinger equation using two integration schemes.* Mathematical Methods in the Applied Sciences. 44,7.
526. **Saleem N., Abbas M., Sohail M.** *Approximate Fixed Point Results for $(\hat{I} \pm \hat{I}^*)$ -Type and $(\hat{I}^2 - \hat{I}^*)$ -Type Fuzzy Contractive Mappings in b-Fuzzy Metric Spaces.* Malaysian Journal of Mathematical Sciences. 15,2.
527. **Noor Q., Rashid T., Husnine S.M.** *An extended TDM method under probabilistic interval-valued hesitant fuzzy environment for stock selection.* PLoS ONE. 16,5-May.
528. **Akgul A., Siddique I.** *Analysis of MHD Couette flow by fractal-fractional differential operators.* Chaos, Solitons and Fractals. 146.

529. **Akgul A., Siddique I.** *Novel applications of the magnetohydrodynamics couple stress fluid flows between two plates with fractal-fractional derivatives.* Numerical Methods for Partial Differential Equations. 37,3.
530. **Ali J., Bashir Z., Rashid T.** *WASPAS-based decision making methodology with unknown weight information under uncertain evaluations.* Expert Systems with Applications. 168.
531. **Khan S., Mardan S.A., Rehman M.A.** *Study of charged generalized polytropes with complexity factor.* European Physical Journal Plus. 136,4.
532. **Shaikh T.S., Fayyaz N., Ahmed N., Shahid N., Rafiq M., Khan I., Nisar K.S.** *Numerical study for epidemic model of hepatitis-B virus.* European Physical Journal Plus. 136,4.
533. **Siddique I., Shah N.A., Abro K.A.** *Thermography of ferromagnetic Walter's-B fluid through varying thermal stratification.* South African Journal of Chemical Engineering. 36.
534. **Macías-Díaz J.E., Ahmed N., Jawaz M., Rafiq M., Aziz ur Rehman M.** *Design and analysis of a discrete method for a time-delayed reaction-diffusion epidemic model.* Mathematical Methods in the Applied Sciences. 44,6.
535. **Tufail M.N., Saleem M., Chaudhry Q.A.** *An analysis of Maxwell fluid through a shrinking sheet with thermal slip effect: a Lie group approach.* Indian Journal of Physics. 95,4.
536. **Hussain M.T., Amjid V.** *Finite groups with weakly m - if -permutable subgroups.* Journal of Algebra and its Applications. 20,4.
537. **Ahmed N., Fatima U., Iqbal S., Raza A., Rafiq M., Rehman M.A., Saeed S., Khan I., Nisar K.S.** *Spatio-Temporal Dynamics and Structure Preserving Algorithm for Computer Virus Model.* Computers, Materials and Continua. 68,1.
538. **Azam S., Ahmed N., Raza A., Iqbal M.S., Rafiq M., Khan I., Nisar K.S., Ahmad M.O., Iqbal Z.** *Numerical Analysis of Novel Coronavirus (2019-nCov) Pandemic Model with Advection.* Computers, Materials and Continua. 67,3.

539. **Danish G.A., Imran M., Tahir M., Waqas H., Asjad M.I., Akgul A., Baleanu D.** *Effects of Non-Linear Thermal Radiation and Chemical Reaction on Time Dependent Flow of Williamson Nanofluid With Combine Electrical MHD and Activation Energy.* Journal of Applied and Computational Mechanics. 7,2.
540. **Saleem M., Tufail M.N., Chaudhry Q.A.** *One-parameter scaling transformations of Maxwell nanofluid with Ludwig-Soret and pedesis motion passed over stretching-shrinking surfaces.* Microfluidics and Nanofluidics. 25,3.
541. **Zafar Z.U.A., Younas S., Hussain M.T., Tunç C.** *Fractional aspects of coupled mass-spring system.* Chaos, Solitons and Fractals. 144.
542. **Noureen I., Usman-Ul-Haq, Mardan S.A.** *Impact of $f(R, T)$ gravity in evolution of charged viscous fluids.* International Journal of Modern Physics D. 30,4.
543. **Jawaz M., ur Rehman M.A., Ahmed N., Baleanu D., Rafiq M.** *Numerical and bifurcation analysis of spatio-temporal delay epidemic model.* Results in Physics. 22.
544. **Tabassum M.F., Saeed M., Akgul A., Farman M., Akram S.** *Solution of chemical dynamic optimization systems using novel differential gradient evolution algorithm.* Physica Scripta. 96,3.
545. **Ali J., Bashir Z., Rashid T.** *Weighted interval-valued dual-hesitant fuzzy sets and its application in teaching quality assessment.* Soft Computing. 25,5.
546. **Bashir Z., Ali J., Rashid T.** *Consensus-based robust decision making methods under a novel study of probabilistic uncertain linguistic information and their application in Forex investment.* Artificial Intelligence Review. 54,3.
547. **Farhan Tabassum M., Saeed M., Ahmad Chaudhry N., Ali J., Farman M., Akram S.** *Evolutionary simplex adaptive Hooke-Jeeves algorithm for economic load dispatch problem considering valve point loading effects.* Ain Shams Engineering Journal. 12,1.
548. **Riaz M.B., Atangana A., Iftikhar N.** *Heat and mass transfer in Maxwell fluid in view of local and non-local differential operators.* Journal of Thermal Analysis and Calorimetry. 143,6.

549. **Aslam M.S., Bota M.F., Chowdhury M.S.R., Guran L., Saleem N.** *Common fixed points technique for existence of a solution of urysohn type integral equations system in complex valued b-metric spaces.* Mathematics. 9,4.
550. **Zulqarnain R.M., Xin X.L., Siddique I., Asghar Khan W., Yousif M.A.** *Topsis method based on correlation coefficient under pythagorean fuzzy soft environment and its application towards green supply chain management.* Sustainability (Switzerland). 13,4.
551. **Rashid T., Ali A., Chu Y.-M.** *Hybrid BW-EDAS MCDM methodology for optimal industrial robot selection.* PLoS ONE. 16,2-Feb.
552. **Jhangeer A., Hussain A., Junaid-U-Rehman M., Baleanu D., Riaz M.B.** *Quasi-periodic, chaotic and travelling wave structures of modified Gardner equation.* Chaos, Solitons and Fractals. 143.
553. **Khan M.F., Alrabaiah H., Ullah S., Khan M.A., Farooq M., Mamat M.B., Asjad M.I.** *A new fractional model for vector-host disease with saturated treatment function via singular and non-singular operators.* Alexandria Engineering Journal. 60,1.
554. **Ali R., Asjad M.I., Akgul A.** *An analysis of a mathematical fractional model of hybrid viscous nanofluids and its application in heat and mass transfer.* Journal of Computational and Applied Mathematics. 383.
555. **Mahboob A., Mahboob S., Jaradat M.M.M., Nigar N., Siddique I.** *On Some Properties of Multiplicative Topological Indices in Silicon-Carbon.* Journal of Mathematics. 2021.
556. **Saeed M., Rahman A.U., Ume-E-Farwa** *Optimal Supplier Selection via Decision-Making Algorithmic Technique Based on Single-Valued Neutrosophic Fuzzy Hypersoft Set.* Neutrosophic Sets and Systems. 47.
557. **Ullah N., Asjad M.I., Ur Rehman H.** *Novel solitons solutions of two different nonlinear PDEs appear in engineering and physics.* Nonlinear Engineering. 10,1.
558. **Izhar M.M., Perveen Z., Alrowaili D., Azeem M., Siddique I., Imran S., Sardar M.S.** *Computing Topological Descriptors and Polynomials of Certain 2D Chemical Structures.* Journal of Chemistry. 2021.

559. **Javaid M., Ibraheem M., Bonyah E.** *Computing Bounds for General Randic Coindex of Sum Graphs.* Journal of Mathematics. 2021.
560. **Javaid M., Zafar H., Bonyah E.** *Fractional Metric Dimension of Generalized Sunlet Networks.* Journal of Mathematics. 2021.
561. **Asjad M.I., Ullah N., Rehman H.U., Gia T.N.** *Novel soliton solutions to the Atangana-Baleanu fractional system of equations for the ISALWs.* Open Physics. 19,1.
562. **Sattar A., Javaid M., Bonyah E.** *Connection-Based Multiplicative Zagreb Indices of Dendrimer Nanostars.* Journal of Mathematics. 2021.
563. **Naseem A., Rehman M.A., Younis J.** *Some Real-Life Applications of a Newly Designed Algorithm for Nonlinear Equations and Its Dynamics via Computer Tools.* Complexity. 2021.
564. **Saleem N., Ahmad H., Aydi H., Ulrich Gaba Y.** *On Some Coincidence Best Proximity Point Results.* Journal of Mathematics. 2021.
565. **Rahman A.U., Saeed M., Arshad M., El-Morsy S.** *Multi-Attribute Decision-Support System Based on Aggregations of Interval-Valued Complex Neutrosophic Hypersoft Set.* Applied Computational Intelligence and Soft Computing. 2021.
566. **Javaid M., Ibraheem M., Raheem A.** *Computing Analysis of Degree and Connection Based Irregular Indices of Polycyclic Aromatic Hydrocarbons.* Current organic synthesis. 18,8.
567. **Ahsan M., Zahid Z., Alrowaili D., Iampan A., Siddique I., Zafar S.** *On the Edge Metric Dimension of Certain Polyphenyl Chains.* Journal of Chemistry. 2021.
568. **Javaid M., Zafar H., Aljaedi A., Alanazi A.M.** *Boundedness of Convex Polytopes Networks via Local Fractional Metric Dimension.* Mathematical Problems in Engineering. 2021.
569. **Ahmad H., Younis M., Köksal M.E.** *Double Controlled Partial Metric Type Spaces and Convergence Results.* Journal of Mathematics. 2021.
570. **Javaid M., Javed S., Alanazi Y.F., Alanazi A.M.** *Computing Correlation among the Graphs under Lexicographic Product via Zagreb Indices.* Journal of Chemistry. 2021.

571. **Alrowaili D., Zahid Z., Ahsan M., Zafar S., Siddique I.** *Edge Metric Dimension of Some Classes of Toeplitz Networks.* Journal of Mathematics. 2021.
572. **Saleem N.** *Coincidence Best Proximity Point Results via WP -Distance with Applications.* Forum for Interdisciplinary Mathematics.
573. **Talib I., Alam M.N., Baleanu D., Zaidi D.** *A Decomposition Algorithm Coupled With Operational Matrices Approach With Applications To Fractional Differential Equations.* Thermal Science. 25, SpecialIssue 2.
574. **Chu Y.-M., Ahmad M., Asjad M.I., Baleanu D.** *Fractional Model Of Second Grade Fluid Induced By Generalized Thermal And Molecular Fluxes With Constant Proportional Caputo.* Thermal Science. 25, SpecialIssue 2.
575. **Asjad M.I., Zahid M., Chu Y.-M., Baleanu D.** *Prabhakar Fractional Derivative and Its Applications in the Transport Phenomena Containing Nanoparticles.* Thermal Science. 25, SpecialIssue 2.
576. **Asadullah M., Raza A., Ikram M.D., Asjad M.I., Naz R., Mustafa I.N.C.** *Mathematical Fractional Modeling of Transpot Phenomena of Viscous Fluid-Flow Between Two Plates.* Thermal Science. 25, SpecialIssue 2.
577. **Rizwan M., Bhatti A.A., Javaid M., Bonyah E.** *Extremal Values of Variable Sum Exdeg Index for Conjugated Bicyclic Graphs.* Journal of Chemistry. 2021.
578. **Zafar H., Javaid M., Bonyah E.** *Computing LF-Metric Dimension of Generalized Gear Networks.* Mathematical Problems in Engineering. 2021.
579. **Naseem A., Rehman M.A., Younis J.** *A New Root-Finding Algorithm for Solving Real-World Problems and Its Complex Dynamics via Computer Technology.* Complexity. 2021.
580. **Kirmani S.K.N., Riaz M.B., Jarad F., Jasim H.N., Enver A.** *Shape Preserving Piecewise KNR Fractional Order Biquadratic C2 Spline.* Journal of Mathematics. 2021.
581. **Ahmad M., Asjad M.I., Nisar K.S., Khan I.** *Mechanical and thermal energies transport flow of a second grade fluid with novel fractional derivative.* Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering.

582. **Jamil F., Kashif A., Zafar S., Bassfar Z., Alanazi A.M.** *Local Fractional Strong Metric Dimension of Certain Rotationally Symmetric Planer Networks.* IEEE Access. 9.
583. **Alrowaili D.A., Javed S., Javaid M.** *On the Exact Values of HZ-Index for the Graphs under Operations.* Journal of Mathematics. 2021.
584. **Javaid M., Siddique M.K., Bonyah E.** *Computing Gutman Connection Index of Thorn Graphs.* Journal of Mathematics. 2021.
585. **Nadeem M., Elmoasry A., Siddique I., Jarad F., Zulqarnain R.M., Alebraheem J., Elazab N.S.** *Study of Triangular Fuzzy Hybrid Nanofluids on the Natural Convection Flow and Heat Transfer between Two Vertical Plates.* Computational Intelligence and Neuroscience. 2021.
586. **Javaid M., Imran M.** *Editorial: Topological investigations of chemical networks.* Main Group Metal Chemistry. 44,1.
587. **Mumtaz H.B., Javaid M., Awais H.M., Bonyah E.** *Topological Indices of Pent-Heptagonal Nanosheets via M-Polynomials.* Journal of Mathematics. 2021.
588. **Saeed M., Ur Rahman A., Arshad M., Dhital A.** *A Novel Approach to Neutrosophic Hypersoft Graphs with Properties.* Neutrosophic Sets and Systems. 46.
589. **Ur Rahman A., Saeed M., Khalid A., Ahmad M.R., Ayaz S.** *Decision-Making Application Based on Aggregations of Complex Fuzzy Hypersoft Set and Development of Interval-Valued Complex Fuzzy Hypersoft Set.* Neutrosophic Sets and Systems. 46.
590. **Saeed M., Ahsan M., Saeed M.H., Mehmood A., El-Morsy S.** *Assessment of Solid Waste Management Strategies Using an Efficient Complex Fuzzy Hypersoft Set Algorithm Based on Entropy and Similarity Measures.* IEEE Access. 9.
591. **Amjid V., Hussain M.T., Wu Z.** *On weakly if -semipermutable subgroups of finite groups.* Journal of Algebra and its Applications.
592. **Siddique I., Akgul A., Kahsay H.A., Tsegay T.H., Wubneh K.G.** *Applications of Magnetohydrodynamic Couple Stress Fluid Flow between Two Parallel Plates with Three Different Kernels.* Journal of Function Spaces. 2021.

593. **Siddique I., Zulqarnain R.M., Nadeem M., Jarad F.** *Numerical Simulation of MHD Couette Flow of a Fuzzy Nanofluid through an Inclined Channel with Thermal Radiation Effect.* Computational Intelligence and Neuroscience. 2021.
594. **Ali M.A., Sardar M.S., Siddique I., Alrowaili D.** *Vertex-Based Topological Indices of Double and Strong Double Graph of Dutch Windmill Graph.* Journal of Chemistry. 2021.
595. **Siddique I., Zulqarnain R.M., Ali R., Alburaijan A., Iampan A., Abd El-Wahed Khalifa H.** *A Decision-Making Approach Based on Score Matrix for Pythagorean Fuzzy Soft Set.* Computational Intelligence and Neuroscience. 2021.
596. **Sadiq K., Siddique I., Ali R., Jarad F.** *Impact of Ramped Concentration and Temperature on MHD Casson Nanofluid Flow through a Vertical Channel.* Journal of Nanomaterials. 2021.
597. **Ahsan M., Saeed M., Ur Rahman A.** *A Theoretical and Analytical Approach for Fundamental Framework of Composite Mappings on Fuzzy Hypersoft Classes.* Neutrosophic Sets and Systems. 45.
598. **Iqbal R., Sardar M.S., Alrowaili D., Zafar S., Siddique I.** *On the Connected Safe Number of Some Classes of Graphs.* Journal of Mathematics. 2021.
599. **Alrowaili D., Ashraf F., Ali R., Shoukat A., Shaheen A., Azeem M., Siddique I.** *Computation of Vertex-Based Topological Descriptors of Organometallic Monolayers of TM3C12S12.* Journal of Mathematics. 2021.
600. **Hussain M.T., Javaid M., Ali U., Raza A., Alam M.N.** *Comparing Zinc Oxide- And Zinc Silicate-Related Metal-Organic Networks via Connection-Based Zagreb Indices.* Journal of Chemistry. 2021.
601. **Ullah W., Siddique I., Zulqarnain R.M., Alam M.M., Ahmad I., Raza U.A.** *Classification of Arrhythmia in Heartbeat Detection Using Deep Learning.* Computational Intelligence and Neuroscience. 2021.
602. **Saeed M., Ahsan M., Mehmood A., Saeed M.H., Asad J.** *Infectious Diseases Diagnosis and Treatment Suggestions Using Complex Neutrosophic Hypersoft Mapping.* IEEE Access. 9.

603. **Javaid M., Ibraheem M., Ahmad U., Liu J.-B.** *Sharp Bounds of First Zagreb Coindex for F -Sum Graphs.* Journal of Mathematics. 2021.
604. **Ihsan M., Ur Rahman A., Saeed M., Abd El-Wahed Khalifa H.** *Convexity-Cum-Concavity on Fuzzy Soft Expert Set with Certain Properties.* International Journal of Fuzzy Logic and Intelligent Systems. 21,3.
605. **Naseem A., Rehman M.A., Abdeljawad T., Chu Y.-M.** *Novel Iteration Schemes for Computing Zeros of Non-Linear Equations with Engineering Applications and Their Dynamics.* IEEE Access. 9.
606. **Ibraheem M., Aljohani M.M., Javaid M., Alanazi A.M.** *Forgotten Coindex for the Derived Sum Graphs under Cartesian product.* Journal of Chemistry. 2021.
607. **Riaz M.B., Jarad F., Baleanu D., Asgir M.** *Theoretical study of MHD Maxwell fluid with combined effect of heat and mass transfer via local and nonlocal time derivatives.* Fractals.
608. **Nadeem M., Siddique I., Jarad F., Jamil R.N.** *Numerical Study of MHD Third-Grade Fluid Flow through an Inclined Channel with Ohmic Heating under Fuzzy Environment.* Mathematical Problems in Engineering. 2021.
609. **Aslam M.K., Javaid M., Zhu Q., Raheem A.** *On the Fractional Metric Dimension of Convex Polytopes.* Mathematical Problems in Engineering. 2021.
610. **Mecheraoui R., Mitrovic Z.D., Parvaneh V., Aydi H., Saleem N.** *On Some Fixed Point Results in E-Fuzzy Metric Spaces.* Journal of Mathematics. 2021.
611. **Siddique I., Zulqarnain R.M., Ali R., Jarad F., Iampan A.** *Multicriteria Decision-Making Approach for Aggregation Operators of Pythagorean Fuzzy Hypersoft Sets.* Computational Intelligence and Neuroscience. 2021.
612. **Stephen T., Rohen Y., Saleem N., Devi M.B., Singh K.A.** *Fixed Points of Generalized $\hat{I}\pm$ -Meir-Keeler Contraction Mappings in Sb-Metric Spaces.* Journal of Function Spaces. 2021.
613. **Asjad M.I., Basit A., Akgul A., Muhammad T.** *Generalized Thermal Flux Flow for Jeffrey Fluid with Fourier Law over an Infinite Plate.* Mathematical Problems in Engineering. 2021.

614. **Iftikhar N., Riaz M.B., Zafar A.A., Husnine S.M.** *Nanofluid with nonlinear Rosseland thermal radiation and mixed convection.* Advances in the Theory of Nonlinear Analysis and its Applications. 5,3.
615. **Javaid M., Afzal H.U., Bonyah E.** *Enumeration of the Edge Weights of Symmetrically Designed Graphs.* Journal of Mathematics. 2021.
616. **Siddique I., Ayaz S., Jarad F.** *Dufour Effect on Transient MHD Double Convection Flow of Fractionalized Second-Grade Fluid with Caputo-Fabrizio Derivative.* Complexity. 2021.
617. **Siddique I., Ayaz S., Alrowaili D., Abdal S.** *Functional Application of G-Functions of Lorenzo and Hartley on the Free Convection Flow of Oldroyd-B Fluid with Ordinary and Fractional Techniques.* Complexity. 2021.
618. **Aziz-Ur-Rehman, Riaz M.B., Saeed S.T., Yao S.** *Dynamical analysis of radiation and heat transfer on MHD second grade fluid.* CMES - Computer Modeling in Engineering and Sciences. 129,2.
619. **Jafar M.N., Saeed M., Saqlain M., Yang M.-S.** *Trigonometric Similarity Measures for Neutrosophic Hypersoft Sets with Application to Renewable Energy Source Selection.* IEEE Access. 9.
620. **Liu J.-B., Akram S., Javaid M., Peng Z.-B.** *Exact Values of Zagreb Indices for Generalized T-Sum Networks with Lexicographic Product.* Journal of Mathematics. 2021.
621. **Ullah N., Asjad M.I., Iqbal A., Ur Rehman H., Hassan A., Gia T.N.** *Analysis of optical solitons solutions of two nonlinear models using analytical technique.* AIMS Mathematics. 6,12.
622. **Zahid M., Siddique I., Saleem S., Al-Zubaidi A., Rana M.A., Zafar M.** *Forward Roll Coating of a Williamson's Material onto a Moving Web: A Theoretical Study.* Mathematical Problems in Engineering. 2021.
623. **Ahmad M., Saeed M., Javaid M., Bonyah E.** *Molecular Descriptor Analysis of Certain Isomeric Natural Polymers.* Journal of Chemistry. 2021.
624. **Saleem N., Zhou M., Bashir S., Husnine S.M.** *Some new generalizations of f-contraction type mappings that weaken certain conditions on caputo fractional type differential equations.* AIMS Mathematics. 6,11.

625. **Majeed A.H., Jarad F., Mahmood R., Siddique I.** *Topological characteristics of obstacles and nonlinear rheological fluid flow in presence of insulated fins: A fluid force reduction study.* Mathematical Problems in Engineering. 2021.
626. **Naseem A., Rehman M.A., Abdeljawad T.** *Computational methods for non-linear equations with some real-world applications and their graphical analysis.* Intelligent Automation and Soft Computing. 30,3.
627. **Kalsoom A., Saleem N., Işık H., Al-Shami T.M., Bibi A., Khan H.** *Fixed Point Approximation of Monotone Nonexpansive Mappings in Hyperbolic Spaces.* Journal of Function Spaces. 2021.
628. **Zulqarnain R.M., Siddique I., Ali R., Jarad F., Iampan A.** *Multicriteria Decision-Making Approach for Pythagorean Fuzzy Hypersoft Sets' Interaction Aggregation Operators.* Mathematical Problems in Engineering. 2021.
629. **Sardar M.S., Pan X.-F., Alrowaili D., Siddique I.** *Resistance Distance in Tensor and Strong Product of Path or Cycle Graphs Based on the Generalized Inverse Approach.* Journal of Mathematics. 2021.
630. **Saeed S.T., Riaz M.B., Baleanu D.** *A fractional study of generalized Oldroyd-B fluid with ramped conditions via local & non-local kernels.* Nonlinear Engineering. 10,1.
631. **Sindhu M.S., Rashid T., Kashif A.** *Multiple criteria decision making based on Hamy mean operators under the environment of spherical fuzzy sets.* Journal of Intelligent and Fuzzy Systems. 41,1.
632. **Saeed M., Ahsan M., Ur Rahman A., Saeed M.H., Mehmood A.** *An application of neutrosophic hypersoft mapping to diagnose brain tumor and propose appropriate treatment.* Journal of Intelligent and Fuzzy Systems. 41,1.
633. **Zulqarnain R.M., Xin X.L., Garg H., Ali R.** *Interaction aggregation operators to solve multi criteria decision making problem under pythagorean fuzzy soft environment.* Journal of Intelligent and Fuzzy Systems. 41,1.
634. **Sardar M.S., Liu J.-B., Siddique I., Jaradat M.M.M.** *A Novel and Efficient Method for Computing the Resistance Distance.* IEEE Access. 9.

635. **Ayub R., Ahmad S., Asjad M.I., Ahmad M.** *Heat Transfer Analysis for Viscous Fluid Flow with the Newtonian Heating and Effect of Magnetic Force in a Rotating Regime.* Complexity. 2021.
636. **Alanazi A.S., Munir N., Khan M., Asif M., Hussain I.** *Cryptanalysis of Novel Image Encryption Scheme Based on Multiple Chaotic Substitution Boxes.* IEEE Access. 9.
637. **Ahsan M., Saeed M., Mehmood A., Saeed M.H., Asad J.** *The Study of HIV Diagnosis Using Complex Fuzzy Hypersoft Mapping and Proposing Appropriate Treatment.* IEEE Access. 9.
638. **Saeed M., Rahman A.U., Arshad M.** *A study on some operations and products of neutrosophic hypersoft graphs.* Journal of Applied Mathematics and Computing.
639. **Raheem A., Javaid M., Numan M., Hasni R.** *Sum divisor cordial labeling of disjoint union of paths and subdivided star.* Journal of Discrete Mathematical Sciences and Cryptography.
640. **Javaid M., Ibraheem M., Ahmad U., Zhu Q.** *Computing Bounds for Second Zagreb Coindex of Sum Graphs.* Mathematical Problems in Engineering. 2021.
641. **Javaid M., Afzal H.U., Wang S.** *Complexity of Some Generalized Operations on Networks.* Complexity. 2021.
642. **Ur Rahman A., Saeed M., Alodhaibi S.S., El-Wahed Khalifa H.A.** *Decision making algorithmic approaches based on parameterization of neutrosophic set under hypersoft set environment with fuzzy, intuitionistic fuzzy and neutrosophic settings.* CMES - Computer Modeling in Engineering and Sciences. 128,2.
643. **Bashir H., Zahid Z., Kashif A., Zafar S., Liu J.-B.** *On 2-metric resolvability in rotationally-symmetric graphs.* Journal of Intelligent and Fuzzy Systems. 40,6.
644. **Lu D., Suleman M., Ul Rahman J., Noeiaghdam S., Murtaza G.** *Numerical Simulation of Fractional Zakharov-Kuznetsov Equation for Description of Temporal Discontinuity Using Projected Differential Transform Method.* Complexity. 2021.
645. **Naseem A., Rehman M.A., Abdeljawad T.** *Numerical Methods with Engineering Applications and Their Visual Analysis via Polynomiography.* IEEE Access. 9.

646. **Hussain Z., Murtaza G., Mahmood T., Liu J.-B.** *Estimates for the Norm of Generalized Maximal Operator on Strong Product of Graphs.* Mathematical Problems in Engineering. 2021.
647. **Rizwan M., Bhatti A.A., Javaid M., Jarad F.** *Some Bounds on Bond Incident Degree Indices with Some Parameters.* Mathematical Problems in Engineering. 2021.
648. **Javaid M., Aslam M.K., Alanazi A.M., Aljohani M.M.** *Characterization of (Molecular) Graphs with Fractional Metric Dimension as Unity.* Journal of Chemistry. 2021.
649. **Basumatary B., Wary N., Saeed M., Saqlain M.** *On Some Properties of Plithogenic Neutrosophic Hypersoft Almost Topological Group.* Neutrosophic Sets and Systems. 43.
650. **Zulqarnain R.M., Siddique I., Ali R., Jarad F., Samad A., Abdeljawad T.** *Neutrosophic Hypersoft Matrices with Application to Solve Multiattributive Decision-Making Problems.* Complexity. 2021.
651. **Riaz M.B., Atangana A., Asgir M., Khan M.A., Amsalu Kahsay H.** *Effect of Local and Non-Local Kernels on Heat Transfer of Mixed Convection Flow of the Maxwell Fluid.* Mathematical Problems in Engineering. 2021.
652. **Kashif A., Aftab S., Javaid M., Awais H.M.** *M-polynomial-based topological indices of metal-organic networks.* Main Group Metal Chemistry. 44,1.
653. **Samad A., Zulqarnain R.M., Sermutlu E., Ali R., Siddique I., Jarad F., Abdeljawad T.** *Selection of an Effective Hand Sanitizer to Reduce COVID-19 Effects and Extension of TOPSIS Technique Based on Correlation Coefficient under Neutrosophic Hypersoft Set.* Complexity. 2021.
654. **Javed M., Kashif A., Javaid M.** *On algebraic aspects of SSC associated to the subdivided prism graph.* Journal of Prime Research in Mathematics. 17,1.
655. **Sadiq K., Jarad F., Siddique I., Ali B.** *Soret and Radiation Effects on Mixture of Ethylene Glycol-Water (50%-50%) Based Maxwell Nanofluid Flow in an Upright Channel.* Complexity. 2021.
656. **Talib I., Alam M.N., Baleanu D., Zaidi D., Marriyam A.** *A new integral operational matrix with applications to multi-order fractional differential equations.* AIMS Mathematics. 6,8.
657. **Lv J., Lv X., Nasir R., Zahid Z.** *The Edge Version of Metric Dimension for the Family of Circulant*

Graphs C(1, 2). IEEE Access. 9.

658. **Bashir S., Saleem N., Husnine S.M.** *Fixed point results of a generalized reversed f-contraction mapping and its application.* AIMS Mathematics. 6,8.
659. **Furqan S., Işık H., Saleem N.** *Fuzzy Triple Controlled Metric Spaces and Related Fixed Point Results.* Journal of Function Spaces. 2021.
660. **Mohammadi B., Hussain A., Parvaneh V., Saleem N., Shahkoohi R.J.** *Fixed Point Results for Generalized Fuzzy Contractive Mappings in Fuzzy Metric Spaces with Application in Integral Equations.* Journal of Mathematics. 2021.
661. **Raza M., Javaid M., Saleem N.** *Fractional metric dimension of metal-organic frameworks.* Main Group Metal Chemistry. 44,1.
662. **Shahid N., Rehman M.A.-U., Ahmed N., Baleanu D., Iqbal M.S., Rafiq M.** *Numerical investigation for the nonlinear model of hepatitis-b virus with the existence of optimal solution.* AIMS Mathematics. 6,8.
663. **Rashid T., Ali A., Guirao J.L.G., Valverde A.** *Comparative analysis of hybrid fuzzy MCGDM methodologies for optimal robot selection process.* Symmetry. 13,5.
664. **Amin S., Rehman Virk A.U., Rehman M.A., Shah N.A.** *Analysis of Dendrimer Generation by Sombor Indices.* Journal of Chemistry. 2021.
665. **Javaid M., Javed S., Memon S.Q., Alanazi A.M.** *Forgotten Index of Generalized Operations on Graphs.* Journal of Chemistry. 2021.
666. **Javaid M., Zafar H., Zhu Q., Alanazi A.M.** *Improved Lower Bound of LFMD with Applications of Prism-Related Networks.* Mathematical Problems in Engineering. 2021.
667. **Zulqarnain R.M., Garg H., Siddique I., Ali R., Alsubie A., Hamadneh N.N., Khan I.** *Algorithms for a Generalized Multipolar Neutrosophic Soft Set with Information Measures to Solve Medical Diagnoses and Decision-Making Problems.* Journal of Mathematics. 2021.
668. **Raza M., Alrowaili D.A., Javaid M.** *Local Fractional Metric Dimensions of Generalized Petersen Networks.* IEEE Access. 9.

669. **Saeed M., Ahsan M., Saeed M.H., Mehmood A., Abdeljawad T.** *An Application of Neutrosophic Hypersoft Mapping to Diagnose Hepatitis and Propose Appropriate Treatment.* IEEE Access. 9.
670. **Alanazi A.M., Farid F., Javaid M., Munagi A.** *Computing Exact Values for Gutman Indices of Sum Graphs under Cartesian Product.* Mathematical Problems in Engineering. 2021.
671. **Riaz M.B., Asgir M., Zafar A.A., Yao S.** *Combined Effects of Heat and Mass Transfer on MHD Free Convective Flow of Maxwell Fluid with Variable Temperature and Concentration.* Mathematical Problems in Engineering. 2021.
672. **Zulqarnain R.M., Siddique I., Jarad F., Ali R., Abdeljawad T.** *Development of TOPSIS Technique under Pythagorean Fuzzy Hypersoft Environment Based on Correlation Coefficient and Its Application towards the Selection of Antivirus Mask in COVID-19 Pandemic.* Complexity. 2021.
673. **Basit A., Asjad M.I., Akgul A.** *Convective flow of a fractional second grade fluid containing different nanoparticles with Prabhakar fractional derivative subject to non-uniform velocity at the boundary.* Mathematical Methods in the Applied Sciences.
674. **Zulqarnain R.M., Xin X.L., Saqlain M., Saeed M., Smarandache F., Ahamad M.I.** *Some Fundamental Operations on Interval Valued Neutrosophic Hypersoft Set with Their Properties.* Neutrosophic Sets and Systems. 40.
675. **Rahman A.U., Saeed M., Dhital A.** *Decision Making Application Based on Neutrosophic Parameterized Hypersoft Set Theory.* Neutrosophic Sets and Systems. 41.
676. **Ali M.A., Budak H., Murtaza G., Chu Y.-M.** *Post-quantum Hermite-Hadamard type inequalities for interval-valued convex functions.* Journal of Inequalities and Applications. 2021. 1.
677. **Nadeem A., Kashif A., Zafar S., Zahid Z.** *On 2-partition dimension of the circulant graphs.* Journal of Intelligent and Fuzzy Systems. 40,5.
678. **Saleem N., Isik H., Furqan S., Park C.** *Fuzzy double controlled metric spaces and related results.* Journal of Intelligent and Fuzzy Systems. 40,5.
679. **Rehman M.A., Naseem A., Abdeljawad T.** *Some Novel Sixth-Order Iteration Schemes for Computing Zeros of Nonlinear Scalar Equations and Their Applications in Engineering.* Journal of Function Spaces. 2021.

680. **Saeed S.T., Riaz M.B., Baleanu D., Akgul A., Husnine S.M.** *Exact analysis of second grade fluid with generalized boundary conditions.* Intelligent Automation and Soft Computing. 28,2.
681. **Amin M., Abbas M., Baleanu D., Iqbal M.K., Riaz M.B.** *Redefined extended cubic B-spline functions for numerical solution of time-fractional telegraph equation.* CMES - Computer Modeling in Engineering and Sciences. 127,1.
682. **Peng Z.-B., Javed S., Javaid M., Liu J.-B.** *Computing FGZ index of sum graphs under strong product.* Journal of Mathematics. 2021.
683. **Zahid Z., Asif F., Khalaf A.J.M., Farahani M.R.** *On leap indices of CNCK [n] by using line operator on its subdivision.* Journal of Discrete Mathematical Sciences and Cryptography. 24,2.
684. **Saeed M., Ahsan M., Abdeljawad T.** *A Development of Complex Multi-Fuzzy Hypersoft Set with Application in MCDM Based on Entropy and Similarity Measure.* IEEE Access. 9.
685. **Ahmad M., Asjad M.I., Singh J.** *Application of novel fractional derivative to heat and mass transfer analysis for the slippage flow of viscous fluid with single-wall carbon nanotube subject to Newtonian heating.* Mathematical Methods in the Applied Sciences.
686. **Afzal H.U., Javaid M., Alanazi A.M., Alshehri M.G.** *Computing Edge Weights of Symmetric Classes of Networks.* Mathematical Problems in Engineering. 2021.
687. **Raza M., Alrowaili D.A., Javaid M., Shabbir K.** *Computing Bounds of Fractional Metric Dimension of Metal Organic Graphs.* Journal of Chemistry. 2021.
688. **Priyobarta N., Khomdram B., Rohen Y., Saleem N.** *On Generalized Rational $\hat{I}\pm$ - Geraghty Contraction Mappings in G- Metric Spaces.* Journal of Mathematics. 2021.
689. **Ge-JiLe H., Nazeer M., Hussain F., Khan M.I., Saleem A., Siddique I.** *Two-phase flow of MHD Jeffrey fluid with the suspension of tiny metallic particles incorporated with viscous dissipation and Porous Medium.* Advances in Mechanical Engineering. 13,3.
690. **Liu J.B., Akram S., Javaid M., Raheem A., Hasni R.** *Bounds of Degree-Based Molecular Descriptors for Generalized F-sum Graphs.* Discrete Dynamics in Nature and Society. 2021.

691. **Javaid M., Ali U., Liu J.-B.** *Computing Analysis for First Zagreb Connection Index and Coindex of Resultant Graphs.* Mathematical Problems in Engineering. 2021.
692. **Shahid N., Baleanu D., Ahmed N., Shaikh T.S., Raza A., Iqbal M.S., Rafiq M., Aziz-Ur Rehman M.** *Optimality of solution with numerical investigation for coronavirus epidemic model.* Computers, Materials and Continua. 67,2.
693. **Shamir M.F., Malik A., Mustafa G.** *Wormhole solutions in modified $f(R, \tilde{t}, X)$ gravity.* International Journal of Modern Physics A.
694. **Iqbal Z., Rehman M.A.U., Baleanu D., Ahmed N., Raza A., Rafiq M.** *Mathematical and numerical investigations of the fractional-order epidemic model with constant vaccination strategy.* Romanian Reports in Physics. 73,2.
695. **Saleem M., Tufail M.N., Chaudhry Q.A.** *Correction to : An oscillation effect on MHD radiative casson fluid flows in an asymmetric channel through group theoretical analysis (Can. J. phys, 98, 1: 81-88, 2020, 10.1139/cjp-2018-0723).* Canadian Journal of Physics. 99,2.
696. **Abdeljawad T., Riaz M.B., Saeed S.T., Iftikhar N.** *MHD maxwell fluid with heat transfer analysis under ramp velocity and ramp temperature subject to non-integer differentiable operators.* CMES - Computer Modeling in Engineering and Sciences. 126,1.
697. **Ahmad M., Saeed M., Javaid M.** *Comparative Study of Certain Synthetic Polymers via Bond-Additive Invariants.* IEEE Access. 9.
698. **Javaid M., Javed S., Alanazi A.M., Alotaibi M.R.** *Computing Analysis of Zagreb Indices for Generalized Sum Graphs under Strong Product.* Journal of Chemistry. 2021.
699. **Siddique I., Akgul A.** *Analysis of blood liquor model via nonlocal and singular constant proportional Caputo hybrid differential operator.* Mathematical Methods in the Applied Sciences.
700. **Raheem A., Javaid M., Hanif M., Hasni R., Shah N.** *Super magic deficiency of graphs.* Journal of Discrete Mathematical Sciences and Cryptography.
701. **Zulqarnain R.M., Xin X.L., Saeed M.** *Extension of topsis method under intuitionistic fuzzy hypersoft environment based on correlation coefficient and aggregation operators to solve decision making problem.* AIMS Mathematics. 6,3.

702. Ahmad M., Asjad M.I., Akgul A., Baleanu D. *Analytical solutions for free convection flow of casson nanofluid over an infinite vertical plate.* AIMS Mathematics. 6,3.
703. Naseem A., Rehman M.A., Abdeljawad T. *Some New Iterative Algorithms for Solving One-Dimensional Non-Linear Equations and Their Graphical Representation.* IEEE Access. 9.
704. Azhar K., Zafar S., Kashif A., Zahid Z. *On fault-tolerant partition dimension of graphs.* Journal of Intelligent and Fuzzy Systems. 40,1.
705. Mahboob A., Rashid T. *Multistage decision approach for short life cycle products using Pythagorean fuzzy set.* Journal of Intelligent and Fuzzy Systems. 40,1.
706. Fatima U., Baleanu D., Ahmed N., Azam S., Raza A., Rafiq M., Rehman M.A.-U. *Numerical study of computer virus reaction diffusion epidemic model.* Computers, Materials and Continua. 66,3.
707. Liu X., Ahsan M., Zahid Z., Ren S. *Fault-tolerant edge metric dimension of certain families of graphs.* AIMS Mathematics. 6,2.
708. Irfan Haider M., Imran Asjad M., Aleem M., Hussanan A. *Exact solutions of micropolar SWCNTs nanofluid with heat transfer.* Heat Transfer. 50,1.
709. Ali R., Asjad M.I., Aldalbahi A., Rahimi-Gorji M., Rahaman M. *Convective flow of a Maxwell hybrid nanofluid due to pressure gradient in a channel.* Journal of Thermal Analysis and Calorimetry. 143,2.
710. Rehman H.U., Ullah N., Imran M.A. *Optical solitons of Biswas-Arshed equation in birefringent fibers using extended direct algebraic method.* Optik. 226.
711. Rashid T., Sindhu M.S. *Application of Linear Programming Model in Multiple Criteria Decision Making Under the Framework of Interval-Valued Hesitant Fuzzy Sets.* Advances in Intelligent Systems and Computing. 1197 AISC.
712. Ahmed N., Korkmaz A., Rehman M.A., Rafiq M., Ali M., Ahmad M.O. *Computational modelling and bifurcation analysis of reaction diffusion epidemic system with modified nonlinear incidence rate.* International Journal of Computer Mathematics. 98,3.

713. **Javaid M., Raza M., Rehman M.U., Teh W.C., Cao J.** *Minimum algebraic connectivity of graphs whose complements are bicyclic with two cycles.* Journal of Discrete Mathematical Sciences and Cryptography. 24,4.
714. **Aslam M.K., Javaid M., Raheem A.** *M-polynomial based topological properties of Sudoku graphs.* Journal of Discrete Mathematical Sciences and Cryptography. 24,1.
715. **Raheem A., Hasni R., Javaid M., Umar M.A., Hussain A.** *On (a, d)-SEAT labeling of forests of subdivided stars.* Journal of Discrete Mathematical Sciences and Cryptography. 24,1.
716. **Javaid M., Amin U., Raheem A.** *Extremal unicyclic graphs with respect to the Sanskruti index.* Asian-European Journal of Mathematics. 14,1.

Department of Chemistry

717. **Ikhlaq A., Zafar M., Javed F., Yasar A., Akram A., Shabbir S., Qi F.** *Catalytic ozonation for the removal of reactive black 5 (RB-5) dye using zeolites modified with CuMn₂O₄/gC₃N₄ in a synergic electro flocculation-catalytic ozonation process.* Water Science and Technology. 84,8.
718. **Arshad M., Ahmed K., Bashir M., Kosar N., Kanwal M., Ahmed M., Khan H.U., Khan S., Rauf A., Waseem A., Mahmood T.** *Synthesis, structural properties and potent bioactivities supported by molecular docking and DFT studies of new hydrazones derived from 5-chloroisatin and 2-thiophenecarboxaldehyde.* Journal of Molecular Structure. 1246.
719. **Ulfat W., Mohyuddin A., Amjad M., Saeed S., Mujahid B.** *Recycling of buffing dust tanneries waste to prepare structural thermal insulation panels.* Materials Research Express. 8,12.
720. **Ul Hassan S., Bilal B., Nazir M.S., Naqvi S.A.R., Ali Z., Nadeem S., Muhammad N., Palvasha B.A., Mohyuddin A.** *Recent progress in materials development and biological properties of GTR membranes for periodontal regeneration.* Chemical Biology and Drug Design. 98,6.
721. **Nadeem S., Iqbal S., Javed M., Ahmad M.N., Alsaab H.O., Awwad N.S., Ibrahium H.A., Ibrar A., Mohyuddin A., Haroon S.M., Ali L.** *Kinetic and Isothermal Studies on the Adsorptive Removal of Direct Yellow 12 Dye from Wastewater Using Propionic Acid Treated Bagasse.* ChemistrySelect. 6,43.

722. **Raza H., Yildiz I., Yasmeen F., Munawar K.S., Ashfaq M., Abbas M., Ahmed M., Younus H.A., Zhang S., Ahmad N.** *Synthesis of a 2D copper(II)-carboxylate framework having ultrafast adsorption of organic dyes.* Journal of Colloid and Interface Science. 602.
723. **Wajid S., Kosar N., Ullah F., Gilani M.A., Ayub K., Muhammad S., Mahmood T.** *Demonstrating the Potential of Alkali Metal-Doped Cyclic C₆O₆Li₆Organometallics as Electrides and High-Performance NLO Materials.* ACS Omega. 6,44.
724. **Mumtaz M., Rasool N., Ahmad G., Kosar N., Rashid U.** *N-arylation of protected and unprotected 5-bromo-2-aminobenzimidazole as organic material: Non-linear optical (nlo) properties and structural feature determination through computational approach.* Molecules. 26,22.
725. **Khan I., Zaib S., Javed M., Rashid F., Iqbal J., Ibrar A.** *Antiproliferative and pro-apoptotic effects of thiazolo[3,2-b][1,2,4]triazoles in breast and cervical cancer cells.* Anti-Cancer Agents in Medicinal Chemistry. 21,16.
726. **Iqbal M., Ahmad M.Z., Qureshi K., Bhatti I.A., Alwadai N., Kusuma H.S.** *Template free zinc vanadate flower synthesis, characterization and efficiency for cetirizine-dihydrochloride degradation under UV light irradiation.* Materials Chemistry and Physics. 272.
727. **Javed M., Qamar M.A., Shahid S., Alsaab H.O., Asif S.** *Highly efficient visible light active Cu-ZnO/S-g-C₃N₄nanocomposites for efficient photocatalytic degradation of organic pollutants.* RSC Advances. 11,59.
728. **Asif M., Sajid H., Kosar N., Mahmood T.** *Effect of fluorination on the adsorption properties of aromatic heterocycles toward methyl halides: A quantum chemical study.* Computational and Theoretical Chemistry. 1204.
729. **Kosar N., Tahir H., Ayub K., Gilani M.A., Arshad M., Mahmood T.** *Impact of even number of alkaline earth metal doping on the NLO response of C₂₀ nanocluster; a DFT outcome.* Computational and Theoretical Chemistry. 1204.
730. **Iqbal S., Bahadur A., Javed M., Hakami O., Irfan R.M., Ahmad Z., AlObaid A., Al-Anazy M.M., Baghdadi H.B., Abd-Rabboh H.S.M., Al-Muhimeed T.I., Liu G., Nawaz M.** *Design Ag-doped ZnO heterostructure photocatalyst with sulfurized graphitic C₃N₄ showing enhanced photocatalytic activity.* Materials Science and Engineering B: Solid-State Materials for Advanced Technology. 272.

731. **Yawer M.A., Bano S., Saleem M., Yawer A., Hussain R., Imran M., Irfan A., Rauf A., Abu-Izneid T.** *Synthesis of Urease inhibitory 2, 4-bis (4-cyanobenzyl)glycoluril using sandmeyer reaction and density functional theory investigation.* Current Organic Synthesis. 18,6.
732. **Sher M., Javed M., Shahid S., Hakami O., Qamar M.A., Iqbal S., AL-Anazy M.M., Baghdadi H.B.** *Designing of highly active g-C₃N₄/Sn doped ZnO heterostructure as a photocatalyst for the disinfection and degradation of the organic pollutants under visible light irradiation.* Journal of Photochemistry and Photobiology A: Chemistry. 418.
733. **Arif M., Farooqi Z.H., Irfan A., Begum R.** *Gold nanoparticles and polymer microgels: Last five years of their happy and successful marriage.* Journal of Molecular Liquids. 336.
734. **Ahmad G., Rasool N., Qamar M.U., Alam M.M., Kosar N., Mahmood T., Imran M.** *Facile synthesis of 4-aryl-N-(5-methyl-1H-pyrazol-3-yl)benzamides via Suzuki Miyaura reaction: Antibacterial activity against clinically isolated NDM-1-positive bacteria and their Docking Studies.* Arabian Journal of Chemistry. 14,8.
735. **Qamar M.A., Javed M., Shahid S., Iqbal S., Abubshait S.A., Abubshait H.A., Ramay S.M., Mahmood A., Ghaithan H.M.** *Designing of highly active g-C₃N₄/Co@ZnO ternary nanocomposites for the disinfection of pathogens and degradation of the organic pollutants from wastewater under visible light.* Journal of Environmental Chemical Engineering. 9,4.
736. **Sher M., Khan S.A., Shahid S., Javed M., Qamar M.A., Chinnathambi A., Almoallim H.S.** *Synthesis of novel ternary hybrid g-C₃N₄@Ag-ZnO nanocomposite with Z-scheme enhanced solar light-driven methylene blue degradation and antibacterial activities.* Journal of Environmental Chemical Engineering. 9,4.
737. **Iqbal S., Nadeem S., Bano R., Bahadur A., Ahmad Z., Javed M., AL-Anazy M.M., Qasier A.A., Laref A., Shoaib M., Liu G., Qayyum M.A.** *Green synthesis of biodegradable terpolymer modified starch nanocomposite with carbon nanoparticles for food packaging application.* Journal of Applied Polymer Science. 138,25.
738. **Khan S.A., Shahid S., Mahmood T., Lee C.-S.** *Contact lenses coated with hybrid multifunctional ternary nanocoatings (Phytomolecule-coated ZnO nanoparticles:Gallic Acid:Tobramycin) for the treatment of bacterial and fungal keratitis.* Acta Biomaterialia. 128.
739. **Butt M.H., Zaidi S.H.M., Nabeela, Khan A., Ayub K., Yar M., Hashmi M.A., Yawer M.A., Zia M.A.** *Cu-doped phosphorene as highly efficient single atom catalyst for CO oxidation: A DFT study.* Molecular Catalysis. 509.

740. **Siddique R., Zahoor A.F., Ahmad H., Zahid F.M., Karrar E.** *Impact of different cooking methods on polycyclic aromatic hydrocarbons in rabbit meat.* Food Science and Nutrition. 9,6.
741. **Sher M., Shahid S., Javed M.** *Synthesis of a novel ternary ($\text{g-C}_3\text{N}_4$ nanosheets loaded with Mo doped ZnO nanoparticles) nanocomposite for superior photocatalytic and antibacterial applications.* Journal of Photochemistry and Photobiology B: Biology. 219.
742. **Kosar N., Tahir H., Ayub K., Mahmood T.** *DFT studies of single and multiple alkali metals doped C₂₄ fullerene for electronics and nonlinear optical applications.* Journal of Molecular Graphics and Modelling. 105.
743. **Liu Z., Ye J., Rauf A., Zhang S., Wang G., Shi S., Ning G.** *A flexible fibrous membrane based on copper(ii) metal-organic framework/poly(lactic acid) composites with superior antibacterial performance.* Biomaterials Science. 9,10.
744. **Younis M.W., Yousaf M., Junaid Iqbal Khan M., Munir J., Ain Q., Akhter T.** *Effect of layer sliding on the electronic and optical properties of corrugated silicene/indium selenide van der Waals heterostructure.* Journal of Optoelectronics and Advanced Materials. 23,6-May.
745. **Kosar N., Tahir H., Ayub K., Gilani M.A., Mahmood T.** *Theoretical modification of C₂₄ fullerene with single and multiple alkaline earth metal atoms for their potential use as NLO materials.* Journal of Physics and Chemistry of Solids. 152.
746. **Qamar M.A., Shahid S., Javed M., Iqbal S., Sher M., Bahadur A., AL-Anazy M.M., Laref A., Li D.** *Designing of highly active $\text{g-C}_3\text{N}_4/\text{Ni-ZnO}$ photocatalyst nanocomposite for the disinfection and degradation of the organic dye under sunlight radiations.* Colloids and Surfaces A: Physicochemical and Engineering Aspects. 614.
747. **Iqbal S., Bahadur A., Ali S., Ahmad Z., Javed M., Irfan R.M., Ahmad N., Qamar M.A., Liu G., Akbar M.B., Nawaz M.** *Critical role of the heterojunction interface of silver decorated ZnO nanocomposite with sulfurized graphitic carbon nitride heterostructure materials for photocatalytic applications.* Journal of Alloys and Compounds. 858.
748. **Ujan R., Bahadur A., Shabir G., Iqbal S., Saeed A., Channar P.A., Mahmood Q., Shoaib M., Arshad I., Saifullah M., Liu G., Irfan R.M., Ahmad Z., Javed M., Raheel M., Qayyum M.A., Khalid B., Rizwan K.** *Facile synthesis of novel fluorescent thiazole coumarinyl compounds: Electrochemical, time resolve fluorescence, and solvatochromic study.* Journal of Molecular Structure. 1227.

749. **Saeed S., Nawaz S., Nisar A., Mahmood T., Tayyab M., Nawaz M., Firyal S., Bilal M., Mohyuddin A., Ullah A.** *Effective fabrication of zinc-oxide (ZnO) nanoparticles using Achyranthes aspera leaf extract and their potent biological activities against the bacterial poultry pathogens.* Materials Research Express. 8,3.
750. **Siddique R., Fawad Zahoor A., Ahmad H., Maqbool Zahid F., Abid M., Siddeeq A.** *Probing the impact of conventional oil frying on the formation of polycyclic aromatic hydrocarbons in rabbit meat.* Food Science and Nutrition. 9,3.
751. **Qamar M.A., Shahid S., Javed M., Sher M., Iqbal S., Bahadur A., Li D.** *Fabricated novel g - C_3N_4/Mn doped ZnO nanocomposite as highly active photocatalyst for the disinfection of pathogens and degradation of the organic pollutants from wastewater under sunlight radiations.* Colloids and Surfaces A: Physicochemical and Engineering Aspects. 611.
752. **Kosar N., Munsif S., Ayub K., Mahmood T.** *Storage and permeation of hydrogen molecule, atom and ions (H^+ and H^-) through silicon carbide nanotube; a DFT approach.* International Journal of Hydrogen Energy. 46,13.
753. **Iqbal S., Ahmad N., Javed M., Qamar M.A., Bahadur A., Ali S., Ahmad Z., Irfan R.M., Liu G., Akbar M.B., Qayyum M.A.** *Designing highly potential photocatalytic comprising silver deposited ZnO NPs with sulfurized graphitic carbon nitride ($Ag/ZnO/S-g-C_3N_4$) ternary composite.* Journal of Environmental Chemical Engineering. 9,1.
754. **Sher M., Javed M., Shahid S., Iqbal S., Qamar M.A., Bahadur A., Qayyum M.A.** *The controlled synthesis of g - C_3N_4/Cd -doped ZnO nanocomposites as potential photocatalysts for the disinfection and degradation of organic pollutants under visible light irradiation.* RSC Advances. 11,4.
755. **Khan S.A., Shahid S., Hanif S., Almoallim H.S., Alharbi S.A., Sellami H.** *Green synthesis of chromium oxide nanoparticles for antibacterial, antioxidant anticancer, and biocompatibility activities.* International Journal of Molecular Sciences. 22,2.
756. **Dar A., Rehman R., Zaheer W., Shafique U., Anwar J.** *Synthesis and Characterization of ZnO -Nanocomposites by Utilizing Aloe Vera Leaf Gel and Extract of Terminalia arjuna Nuts and Exploring Their Antibacterial Potency.* Journal of Chemistry. 2021.
757. **Jamil S., Nasir M., Ali Y., Nadeem S., Rashid S., Javed M.Y., Hayat A.** *$Cr_2O_3-TiO_2$ -Modified Filter Paper-Based Portable Nanosensors for Optical and Colorimetric Detection of Hydrogen Peroxide.* ACS Omega.

758. Khan S.A., Shahid S., Ayaz A., Alkahtani J., Elshikh M.S., Riaz T. *Phytomolecules-coated NiO nanoparticles synthesis using abutilon indicum leaf extract: Antioxidant, antibacterial, and anticancer activities.* International Journal of Nanomedicine. 16.
759. Ikhlaq A., Javed F., Akram A., Qazi U.Y., Masood Z., Ahmed T., Arshad Z., Khalid S., Qi F. *Treatment of leachate through constructed wetlands using Typha angustifolia in combination with catalytic ozonation on Fe-zeolite A.* International Journal of Phytoremediation. 23,8.
760. Siddique R., Zahoor A.F., Ahmad S., Ahmad H., Mansha A., Zahid F.M., Faisal S., Aadil R.M. *GC-MS analysis of PAHS in charcoal grilled rabbit meat with and without additives.* Food Science and Technology (Brazil). 41.
761. Iqbal S., Nadeem S., Bahadur A., Javed M., Ahmad Z., Ahmad M.N., Shoaib M., Liu G., Mohyuddin A., Raheel M. *The Effect of Ni-Doped ZnO NPs on the Antibacterial Activity and Degradation Rate of Polyacrylic Acid-Modified Starch Nanocomposite.* JOM. 73,1.
762. Kosar N., Ayub K., Mahmood T. *Surface functionalization of twisted graphene C32H15 and C104H52 derivatives with alkalis and superalkalis for NLO response; a DFT study.* Journal of Molecular Graphics and Modelling. 102.
763. Abid O.-U.-R., Daud S., Sardar A., Rehman W., Wadood A., Rehman A.U., Akhter T., Bibi I., Ahmad Z., Yasir M. *Synthesis, urease inhibition screening and molecular docking studies of piperonal based imine derivatives.* Medicinal Chemistry Research. 30,1.
764. Kosar N., Ullah F., Ayub K., Rashid U., Imran M., Ahmed M.N., Mahmood T. *Theoretical investigation of halides encapsulated Na@B40 nanocages for potential applications as anodes for sodium ion batteries.* Materials Science in Semiconductor Processing. 121.

Department of Life Sciences

765. Khan A., Ahmed H., Amjad S., Afzal M.S., Haider W., Simsek S., Khawaja M.R., Khan D.H., Naz S., Durrance-Bagale A., Shabbir R.M.K., Arfeen R.Z.U., Ali S., Cao J. *Community Based Assessment of Behavior and Awareness of Risk Factors of Cystic Echinococcosis in Major Cities of Pakistan: A One Health Perspective.* Frontiers in Public Health. 9.

766. **Muhammad A., Bashir R., Mahmood M., Afzal M.S., Simsek S., Awan U.A., Khan M.R., Ahmed H., Cao J.** *Epidemiology of Ectoparasites (Ticks, Lice, and Mites) in the Livestock of Pakistan: A Review.* Frontiers in Veterinary Science. 8.
767. **Basit Z., Gull I., Tipu I., Abbas Z., Iqbal M.M., Aslam M.S.** *Quantitative Analysis of Plasma Circulating Cell-Free Nucleic Acid Based Biomarkers in Patients with Breast Cancer.* Molecular Genetics, Microbiology and Virology. 36.
768. **Ahad A., Mahnoor S., Zaid M., Ali M., Afzal M.S.** *Ebolavirus: Infection, Vaccination and Control.* Molecular Genetics, Microbiology and Virology. 36.
769. **Shah S.S.T.H., Naeem I., Wahid B.** *Analyzing Correlation of Clinical Severity of COVID-19 with Other Biochemical Parameters: A Retrospective Study from Pakistan.* Tohoku Journal of Experimental Medicine. 255,4.
770. **Awan U.A., Malik M.W., Ahmed H., Hassan U., Khan A.S., Bashir S., Afzal M.S.** *War-torn Afghanistan - potential risk to the polio eradication efforts: A call for global concern!* Journal of Infection. 83,6.
771. **Khattak A.A., Awan U.A., Nadeem M.F., Yaqoob A., Afzal M.S.** *Chloroquine-resistant Plasmodium falciparum in Pakistan.* The Lancet Infectious Diseases. 21,12.
772. **Royer-Bertrand B., Jequier Gygax M., Cisarova K., Rosenfeld J.A., Bassetti J.A., Moldovan O., O'Heir E., Burrage L.C., Allen J., Emrick L.T., Eastman E., Kumps C., Abbas S., Van Winckel G., Chabane N., Zackai E.H., Lebon S., Keena B., Bhoj E.J., Umair M., Li D., Donald K.A., Superti-Furga A., Undiagnosed Diseases Network.** *De novo variants in CACNA1E found in patients with intellectual disability, developmental regression and social cognition deficit but no seizures.* Molecular Autism. 12,1.
773. **Mumtaz A., Sadiq F., Zaki S., Batool H., Ibrahim M., Khurram M., Awan U.A., Saeed K., Afzal M.S.** *Trimester-specific reference ranges for thyroid hormones of pregnant females at tertiary care hospitals in Lahore, Pakistan.* BMC Pregnancy and Childbirth. 21,1.
774. **Mushtaq A., Shoukat T., Mumtaz T., Qasim M., Ajmal K., Fatima N., Khan A., Kouser M., Hussain N., Khan S.S., Afzal M.S., Simsek S., Ahmed H.** *Tick-borne Diseases in Sheep and Goats in Pakistan: A Systematic Review and Meta-analysis.* Acta Parasitologica. 66,4.

775. **Abbasi A., Shahzad K., Shabbir R.M.K., Afzal M.S., Zahid H., Zahid T., Ahmed H., Cao J.** *Demographic Attributes of Knowledge, Attitude, Practices, and One Health Perspective Regarding Diarrhea in Pakistan.* Frontiers in Public Health. 9.
776. **Maqsood T., Shahzad K., Naz S., Simsek S., Afzal M.S., Ali S., Ahmed H., Cao J.** *A Cross-Sectional Study on the Association between Risk Factors of Toxoplasmosis and One Health Knowledge in Pakistan.* Frontiers in Veterinary Science. 8.
777. **Irum S., Ahsan A., Ahmed H., Khan A., Yayi G., Mehboob M., Kilinc S.G., Kesik H.K., Afzal M.S., Ali S., Mehmood M., Celik F., Simsek S.** *A demographic survey on the prevalence of gastrointestinal parasites based on socioeconomic determinants in Pakistan.* Journal of Infection in Developing Countries. 15,11.
778. **Wahid B., Amir A., Ameen A., Idrees M.** *Current status of therapeutic approaches and vaccines for SARS-CoV-2.* Future Microbiology. 16,17.
779. **NÄstvik M., Kateta S.M., Schönewolf-Greulich B., Afenjar A., Barth M., Boschann F., Douummar D., Haack T.B., Keren B., Livshits L.A., Mei D., Park J., Pisano T., Prouteau C., Umair M., Waqas A., Ziegler A., Guerrini R., MÄller R.S., TÄmer Z.** *Clinical and molecular delineation of PUS3-associated neurodevelopmental disorders.* Clinical Genetics. 100,5.
780. **Ahmad F., Ahmed I., Alam Q., Ahmad T., Khan A., Ahmad I., Bilal M., Hayat A., Khan A., Waqas A., Rafeeq M.M., Sain Z.M., Umair M.** *Variants in the PNPLA1 Gene in Families with Autosomal Recessive Congenital Ichthyosis Reveal Clinical Significance.* Molecular Syndromology. 12,6.
781. **Nabi A.G., Mateen R.M., Khalid A., Tariq A., Parveen R.** *Persistence of Semen on five different fabric types in various water environments.* Forensic Science International. 327.
782. **Ullah R., Rauf N., Nabi G., Yi S., Yu-Dong Z., Fu J.** *Mechanistic insight into high-fat diet-induced metabolic inflammation in the arcuate nucleus of the hypothalamus.* Biomedicine and Pharmacotherapy. 142.
783. **Awan U.A., Malik M.W., Khattak A.A., Ahmed H., Khan M.I., Qureshi H., Afzal M.S.** *Emerging polio hotspots in Pakistan: Challenges and the way forward.* Journal of Infection. 83,4.
784. **Basinger S.C., Khan A., Ahmed H., Afzal M.S., Simsek S., Budke C.M.** *Estimation of the monetary burden of treated human cystic echinococcosis in Pakistan.* Acta Tropica. 222.

785. **Rafique I., Saqib M.A.N., Fawwad A., Zubaida B., Naeem M., Mir A., Basit A.** *Genetic characterization of suspected MODY patients in Pakistan by next generation sequencing-a pilot study.* International Journal of Diabetes in Developing Countries. 41,4.
786. **Bukhari H., Tu Zahra S.F., Zahoor S., Saqib M.A.N., Afzal M.S.** *A rare case of extensively drug-resistant *Salmonella typhi* meningitis in a 9-year old: A case report.* Future Microbiology. 16,13.
787. **Wadood H.Z., Latif A., Mukhtar H., Javed M., Mukhtar H., Rehman Y.** *Planktonic cells of *Staphylococcus* and *Bacillus* species capable of faster chromium reduction in short incubation times as compared to their biofilms.* Arabian Journal of Geosciences. 14,17.
788. **Ali Z., Sarwar M., Ansar S., Awan U.A., Ahmed H., Aftab N., Afzal M.S.** *COVID-19 vaccination hesitancy in patients with autoimmune diseases: A mystery that needs an immediate solution!* Journal of Medical Virology. 93,9.
789. **Khan A., Ahmed H., Simsek S., Shahzad K., Celik F., Afzal M.S., Khan M.R., Liu H., Shen Y., Cao J.** *Haplotype comparisons of *Echinococcus granulosus* sensu lato via mitochondrial gene sequences (*co1*, *cytb*, *nadh1*) among Pakistan and its neighbouring countries.* Parasitology. 148,9.
790. **Awan U.A., Haroon K., Haqqi A., khattak A.A., Khurram M., Ahmed H., Afzal M.S.** *COVID-19 and immunization gap in Pakistan: fear drives for forthcoming spikes.* Public Health. 197.
791. **Haqqi A., Awan U.A., Ahmed H., Afzal M.S.** *Antimicrobial resistance vs COVID-19: A bigger challenge in the post-pandemic era!* Journal of the Formosan Medical Association. 120,7.
792. **Awan U.A., Saqib M.A.N., Ahmed H., Afzal M.S.** *Hunger, malnutrition and persistent COVID-19 lockdowns: A swift approach is required.* Journal of the Formosan Medical Association. 120,7.
793. **Khattak A.A., Awan U.A., Afzal M.S., Nadeem M.F.** *COVID-19 and non-COVID-19 pneumonia: Alarming synergism for Pakistan's overwhelmed healthcare system.* Journal of the Formosan Medical Association. 120,7.
794. **Awan U.A., Zahoor S., Ayub A., Ahmed H., Aftab N., Afzal M.S.** *COVID-19 and arboviral diseases: Another challenge for Pakistan's dilapidated healthcare system.* Journal of Medical Virology. 93,7.

795. **Rasib Q., Khan A., Ahmed H., Nizamuddin S., Asif F., Afzal M.S., Simsek S., Khurshid F., Irum S., Hussain N., Riaz S., Khan S.S., Budke C.M.** *Demographics of cystic echinococcosis patients treated surgically in Lahore, Pakistan: A single centre study from 2007 – 2018.* Helminthologia (Poland). 58,2.
796. **Aslam M.S., Zaidi S.Z.J., Toor R.H., Gull I., Iqbal M.M., Abbas Z., Tipu I., Ahmed A., Athar M.A., Harito C., Hassan S.-U.** *Interferon α2-Thymosin α1 Fusion Protein (IFN α 2-T α 1): A Genetically Engineered Fusion Protein with Enhanced Anticancer and Antiviral Effect.* Materials. 14,12.
797. **Chaudry S.N., Hussain W., Rasool N.** *Analyzing phytochemicals as inhibitors of diabetes mellitus 2 causing proteins based on computer-aided drug discovery protocols.* Natural Products Journal. 11,3.
798. **Kim J., Lal A., Kil E.-J., Kwak H.-R., Yoon H.-S., Choi H.-S., Kim M., Ali M., Lee S.** *Adaptation and codon-usage preference of apple and pear-infecting apple stem grooving viruses.* Microorganisms. 9,6.
799. **Mahmood M.S., Irshad S., Kalsoom U., Batool H., Batool S., Butt T.A.** *In silico analysis of missense Single Nucleotide Variants (SNVs) in HBB gene associated with the β^2 -thalassemia.* Gene Reports. 23.
800. **Afzal M.S., Khan A., Qureshi U.U.R., Saleem S., Saqib M.A.N., Shabbir R.M.K., Naveed M., Jabbar M., Zahoor S., Ahmed H.** *Community-Based Assessment of Knowledge, Attitude, Practices and Risk Factors Regarding COVID-19 Among Pakistanis Residents During a Recent Outbreak: A Cross-Sectional Survey.* Journal of Community Health. 46,3.
801. **Rasool N., Yasmin F., Sahai S., Hussain W., Inam H., Arshad A.** *Biological perspective of thiazolidine derivatives against Mpro and MTase of SARS-CoV-2: Molecular docking, DFT and MD simulation investigations.* Chemical Physics Letters. 771.
802. **Ahmed W., Malik M.W., Wattoo M.M., Nadeem F., Ahmed Chaudhry M.S., Afzal M.S., Khan A., Durrance-Bagale A., Ahmed H.** *Impact of COVID-19 pandemic on surveillance of Crimean-Congo haemorrhagic fever (CCHF) in Pakistan.* Travel Medicine and Infectious Disease. 41.
803. **Awan U.A., Khattak A.A., Afzal M.S., Iqbal N., Nadeem M.F.** *Emergence of SARS-CoV-2 Variant: A wake-up call for Pakistan's overburdened healthcare system.* Journal of Medical Virology. 93,5.

804. **Awan U.A., Khattak A.A., Afzal M.S., Khan H.I., Saqib M.A.N., Ahmed H.** *COVID-19 and Tuberculosis overlapping epidemics: A holistic review from Pakistan.* Journal of Medical Virology. 93,5.
805. **Khan H., Zahoor S., Afzal M.S., Khan A., Kaleem I., Shah N.A., Harandi M.F., Ahmed H.** *Occurrence of massively enlarged multiple hydatid cysts in the lung and liver of a pediatric patient in Pakistan.* Iranian Journal of Parasitology. 16,2.
806. **Batool H., Batool S., Mahmood M.S., Mushtaq N., Khan A.U., Ali M., Sahibzada K.I., Ashraf N.M.** *Prediction of putative epitope-based vaccine against all corona virus strains for the Chinese population: Approach toward development of vaccine.* Microbiology and Immunology. 65,4.
807. **Khan A., Sajid R., Gul S., Hussain A., Zehri M.T., Naz S., Simsek S., Waseem S., Afzal M.S., Naqvi S.K.U.H., Qasim M., Ahmed H.** *Epidemiological and pathological characteristics of Cutaneous Leishmaniasis from Baluchistan Province of Pakistan.* Parasitology. 148,5.
808. **Awan U.A., Zahoor S., Rehman K., Khattak A.A., Ahmed H., Aftab N., Afzal M.S.** *COVID-19 and influenza H1N1: A dangerous combination for Pakistan in the upcoming winter season.* Journal of Medical Virology. 93,4.
809. **Zafar A., Aftab M.N., Asif A., Karadag A., Peng L., Celebioglu H.U., Afzal M.S., Hamid A., Iqbal I.** *Erratum: Efficient biomass saccharification using a novel cellobiohydrolase from Clostridium clariflavum for utilization in biofuel industry (RSC Adv. (2021) 11. RSC Advances. 11,19.*
810. **Mahmood M.S., Bin-T-Abid D., Irshad S., Batool H.** *Analysis of Putative Epitope Candidates of Mycobacterium tuberculosis Against Pakistani Human Leukocyte Antigen Background: An Immunoinformatic Study for the Development of Future Vaccine.* International Journal of Peptide Research and Therapeutics. 27,1.
811. **Zafar A., Aftab M.N., Asif A., Karadag A., Peng L., Celebioglu H.U., Afzal M.S., Hamid A., Iqbal I.** *Efficient biomass saccharification using a novel cellobiohydrolase from Clostridium clariflavum for utilization in biofuel industry.* RSC Advances. 11,16.
812. **Hussain W., Majeed A., Akhtar A., Rasool N.** *Computational Studies of 3D-QSAR on a Highly Active Series of Naturally Occurring Nonnucleoside Inhibitors of HIV-1 RT (NNRTI).* Journal of Computational Biophysics and Chemistry. 20,1.

813. Khan A., Umhang G., Ullah Z., Boue F., Bastid V., Ullah I., Mahmood S., Afzal M.S., Ahmed H. *Investigation of Echinococcus multilocularis in foxes and dogs in Pakistan by detection of copro-DNA.* Parasitology Research. 120,2.
814. Khan S., Siddique R., Xiaoyan W., Zhang R., Nabi G., Sohail Afzal M., Liu J., Xue M. *Mental health consequences of infections by coronaviruses including severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2).* Brain and Behavior. 11,2.
815. Javed Z., Javed Iqbal M., Rasheed A., Sadia H., Raza S., Irshad A., Koch W., Kukula-Koch W., GÅowniak-Lipa A., Cho W.C., Sharifi-Rad J. *Regulation of Hedgehog Signaling by miRNAs and Nanoformulations: A Possible Therapeutic Solution for Colorectal Cancer.* Frontiers in Oncology. 10.
816. Afzal M.S. *Cancer Incidence, Mortality, Years of Life Lost, Years Lived with Disability, and Disability-Adjusted Life Years for 29 Cancer Groups from 2010 to 2019: A Systematic Analysis for the Global Burden of Disease Study 2019.* JAMA Oncology.
817. Maryam S., Saba S., Haider W., Afzal M.S., Mukhtar S., Durrance-Bagale A., Arfeen R.Z.U., Bangash N., Shah N.A., Ahmed H. *Community-based social and demographic assessment of knowledge, attitudes, practices and medical conditions related to vitamin D deficiency in Gilgit Baltistan, Pakistan.* Journal of Biosocial Science.
818. Batool S., Bin-T-Abid D., Batool H., Shahid S., Saleem M., Khan A.U., Hamid A., Mahmood M.S., Ashraf N.M. *Development of multi-epitope vaccine constructs for non-small cell lung cancer (NSCLC) against USA human leukocyte antigen background: an immunoinformatic approach toward future vaccine designing.* Expert Opinion on Biological Therapy. 21,11.
819. Mirmahdi R.S., Zoghi A., Mohammadi F., Khosravi-Darani K., Jazaiery S., Mohammadi R., Rehman Y. *Biodecontamination of milk and dairy products by probiotics: Boon for bane.* Italian Journal of Food Science. 33,1.
820. Hamid A., Hussain Z., Tayyab M., Zafar A., Nawaz M.A., Afzal M.S., Ali S., Rehman A.U., Aftab M.N. *Production and characterization of a thermostable extracellular esterase from Aspergillus niger [ProducciÃ³n y caracterizaciÃ³n de una esterasa extracelular termoestable de Aspergillus niger].* Revista Mexicana de Ingenieria Quimica. 20,2.
821. Rasool N., Bakht A., Hussain W. *Analysis of inhibitor binding combined with reactivity studies to discover the potentially inhibiting phytochemicals targeting chikungunya viral replication.* Current Drug Discovery Technologies. 18,3.

822. Akhtar A., Ch S.N., Hussain M. *In silico computation of functional SNPs of CYP2U1 protein leading to hereditary spastic paraplegia.* Informatics in Medicine Unlocked. 24.
823. Majeed A., Hussain W., Yasmin F., Akhtar A., Rasool N. *Virtual Screening of Phytochemicals by Targeting HR1 Domain of SARS-CoV-2 S Protein: Molecular Docking, Molecular Dynamics Simulations, and DFT Studies.* BioMed Research International. 2021.
824. Iqbal P. *Effect of climate change on health in Pakistan Mohammad.* Proceedings of the Pakistan Academy of Sciences: Part B. 57,3.
825. Afzal M.S. *G proteins: Binary switches in health and disease.* Central European Journal of Immunology. 45,3.
826. Irum S., Aftab M., Khan A., Naz S., Simsek S., Habib A., Afzal M.S., Nadeem M.A., Qasim M., Ahmed H. *Cutaneous Leishmaniasis (CL): A Cross-Sectional Community Based Survey on Knowledge, Attitude and Practices in a Highly Endemic Area of Waziristan (KPK Province), Pakistan.* Acta Tropica. 213.
827. Khan A., Tahir A., Sohail Afzal M., Kamran Shabbir R.M., Saleem S., Ahmed H. *HIV is an emerging health challenge in Pakistan: risk factors and management strategies.* Tropical Doctor. 51,1.
828. Wahid B. *Forensic casework analysis and legal challenges during the coronavirus disease 2019 global pandemic: An update from Pakistan.* Medicine, Science and the Law. 61,1.
829. Haqqi A., Khurram M., Din M.S.U., Aftab M.N., Ali M., Ahmed H., Afzal M.S. *COVID-19 and Salmonella Typhi co-epidemics in Pakistan: A real problem.* Journal of Medical Virology. 93,1.
830. Haqqi A., Zahoor S., Aftab M.N., Tipu I., Rehman Y., Ahmed H., Afzal M.S. *COVID-19 in Pakistan: Impact on global polio eradication initiative.* Journal of Medical Virology. 93,1.
831. Haqqi A., Awan U.A., Ali M., Saqib M.A.N., Ahmed H., Afzal M.S. *COVID-19 and dengue virus coepidemics in Pakistan: A dangerous combination for an overburdened healthcare system.* Journal of Medical Virology. 93,1.

832. **Zaynab M., Peng J., Sharif Y., Al-Yahyai R., Jamil A., Hussain A., Khan K.A., Alotaibi S.S., Li S.** *Expression profiling of pathogenesis-related Protein-1 (PR-1) genes from Solanum tuberosum reveals its critical role in phytophthora infestans infection.* Microbial Pathogenesis. 161.
833. **Zaynab M., Hussain A., Sharif Y., Fatima M., Sajid M., Rehman N., Yang X., Khan K.A., Ghamrah H.A., Li S.** *Mitogen-activated protein kinase expression profiling revealed its role in regulating stress responses in potato (Solanum tuberosum).* Plants. 10,7.
834. **Zaynab M., Wang Z., Hussain A., Bahadar K., Sajid M., Sharif Y., Azam M., Sughra K., Raza M.A., Khan K.A., Li S.** *ATP-binding cassette transporters expression profiling revealed its role in the development and regulating stress response in Solanum tuberosum.* Molecular Biology Reports.

14. School of Food and Agricultural Sciences

835. **Rahaman A., Kumari A., Zeng X.-A., Adil Farooq M., Siddique R., Khalifa I., Siddeeg A., Ali M., Faisal Manzoor M.** *Ultrasound based modification and structural-functional analysis of corn and cassava starch.* Ultrasonics Sonochemistry. 80.
836. **Khalid N.** *Mapping subnational HIV mortality in six Latin American countries with incomplete vital registration systems.* BMC Medicine. 19,1.
837. **Hussain M.I., Farooq M., Syed Q.A., Ishaq A., Al-Ghamdi A.A., Hatamleh A.A.** *Botany, nutritional value, phytochemical composition and biological activities of quinoa.* Plants. 10,11.
838. **Ubaid-ul-Rahman H., Asghar W., Khalid N.** *Food Security Challenges for Pakistan during the COVID-19 Pandemic.* Asia-Pacific Journal of Public Health. 33,8.
839. **Muhammad A., Akhtar A., Aslam S., Khan R.S., Ahmed Z., Khalid N.** *Review on physicochemical, medicinal and nutraceutical properties of poppy seeds: a potential functional food ingredient.* Functional Foods in Health and Disease. 11,10.
840. **Akhtar A., Asghar W., Khalid N.** *Phytochemical constituents and biological properties of domesticated capsicum species: A review.* Bioactive Compounds in Health and Disease. 4,9.

841. Ahmad I., Xiong Z., Hanguo X., Khalid N., Rasul Suleria H.A. *Effect of enzymatically hydrolyzed potato powder on quality characteristics of stirred yogurt during cold storage.* Journal of Food Processing and Preservation. 45,9.
842. Amin A., Ahmed I., Khalid N., Schumann P., Busse H.J., Khan I.U., Ali A., Li S., Li W.J. *Correction to: Zafaria cholistanensis gen. nov. sp. nov., a moderately thermotolerant and halotolerant actinobacterium isolated from Cholistan desert soil of Pakistan.* Archives of Microbiology. 203,7.
843. Dahlawi S., Abdulrahman Al Mulla A., Saifullah, Salama K., Ahmed Labib O., Tawfiq Aljassim M., Akhtar A., Asghar W., Kh. Faraj T., Khalid N. *Assessment of different heavy metals in cigarette filler and ash from multiple brands retailed in Saudi Arabia.* Journal of King Saud University – Science. 33,6.
844. Butt M.S., Aslam S., Shukat R., Abbas S.Q., Khan M.I., Shaukat S., Shahid M. *Production of protein hydrolysate from rohu (*labeo rohita*) waste using fungal proteases.* Pakistan Journal of Zoology. 53,4.
845. Khalid N. *Mapping inequalities in exclusive breastfeeding in low- and middle-income countries, 2000-2018.* Nature Human Behaviour. 5,8.
846. Hwang S.-B., Chelliah R., Kang J.E., Rubab M., Banan-MwineDaliri E., Elahi F., Oh D.-H. *Role of Recent Therapeutic Applications and the Infection Strategies of Shiga Toxin-Producing Escherichia coli.* Frontiers in Cellular and Infection Microbiology. 11.
847. Chelliah R., Wei S., Daliri E.B.-M., Rubab M., Elahi F., Yeon S.-J., Jo K.H., Yan P., Liu S., Oh D.H. *Development of nanosensors based intelligent packaging systems: Food quality and medicine.* Nanomaterials. 11,6.
848. Khalid N. *Subnational mapping of HIV incidence and mortality among individuals aged 15-49 years in sub-Saharan Africa, 2000-18: a modelling study.* The Lancet HIV. 8,6.
849. Amina S.J., Iqbal M., Faisal A., Shoaib Z., Niazi M.B.K., Ahmad N.M., Khalid N., Janjua H.A. *Synthesis of diosgenin conjugated gold nanoparticles using algal extract of *Dictyosphaerium* sp. and in-vitro application of their antiproliferative activities.* Materials Today Communications. 27.

850. Ahmad N., Hussain A., Khan S., Korma S.A., Hussain G., Aadil R.M., Siddique R., Ali A., Shabbir U., Haq A.U., Manzoor M.F., Siddeeg A. *Impact of thermal extrusion and microwave vacuum drying on fatty acids profile during fish powder preparation.* Food Science and Nutrition. 9,5.
851. Amin A., Ahmed I., Khalid N., Schumann P., Busse H.-J., Khan I.U., Ali A., Li S., Li W.-J. *Zafaria cholistanensis gen. nov. sp. nov., a moderately thermotolerant and halotolerant actinobacterium isolated from Cholistan desert soil of Pakistan.* Archives of Microbiology. 203,4.
852. Rubab M., Oh D.-H. *Molecular detection of antibiotic resistance genes in shiga toxin-producing e. Coli isolated from different sources.* Antibiotics. 10,4.
853. Soo Y.N., Tan C.P., Tan P.Y., Khalid N., Tan T.B. *Fabrication of oil-in-water emulsions as shelf-stable liquid non-dairy creamers: effects of homogenization pressure, oil type, and emulsifier concentration.* Journal of the Science of Food and Agriculture. 101,6.
854. Ishaq A., Syed Q.A., Ebner P.D., Ubaid ur Rahman H. *Multiple hurdle technology to improve microbial safety, quality and oxidative stability of refrigerated raw beef.* LWT. 138.
855. Ubaid ur Rahman H., Asghar W., Nazir W., Sandhu M.A., Ahmed A., Khalid N. *A comprehensive review on chlorpyrifos toxicity with special reference to endocrine disruption: Evidence of mechanisms, exposures and mitigation strategies.* Science of the Total Environment. 755.
856. Dahlawi S., Berekaa M., Salama K., Labib O., Saifullah, Asghar W., Khalid N. *Profiling of Essential Mineral Content, Heavy Metals, and Bacterial Contaminants in Conventional and Organic Eggs Available in the Hypermarkets of the Eastern Province of Saudi Arabia.* Recent patents on food, nutrition & agriculture. 12,2.
857. Sultan S., Ahmed Z., Afreen A., Rashid F., Majeed F., Khalid N. *Analgesic effect of ginger and peppermint on adolescent girls with primary dysmenorrheal.* Food Science and Technology (Brazil). 41,4.
858. Aslam S., Khalid N. *COVID-19 Pandemic and Food Safety Issues in Pakistan.* Journal of Food Quality and Hazards Control. 8,3.
859. Akhtar A., Aslam S., Khan S., McClements D.J., Khalid N., Maqsood S. *Utilization of diverse protein sources for the development of protein-based nanostructures as bioactive carrier systems: A review of recent research findings (2010-2021).* Critical Reviews in Food Science and Nutrition.

860. Liaquat S., Qayyum M., Ahmed H., Arfeen R.Z.U., Celik F., Simsek S. *Seroepizootiological investigation on goat warble fly infestation (*Przhevalskiana silenus*) in pothwar plateau, Pakistan.* Tropical Biomedicine. 38,2.
861. Chandrashekhar S., Vijayakumar R., Chelliah R., Daliri E.B.-M., Madar I.H., Sultan G., Rubab M., Elahi F., Yeon S.-J., Oh D.-H. *In vitro and in silico screening and characterization of antimicrobial napin bioactive protein in Brassica juncea and Moringa oleifera.* Molecules. 26,7.
862. Rauf A., Khalil A.A., Rahman U.-U., Khalid A., Naz S., Shariati M.A., Rebezov M., Urtecho E.Z., de Albuquerque R.D.D.G., Anwar S., Alamri A., Saini R.K., Rengasamy K.R.R. *Recent advances in the therapeutic application of short-chain fatty acids (SCFAs): An updated review.* Critical Reviews in Food Science and Nutrition.
863. Khalid N. *Anemia prevalence in women of reproductive age in low- and middle-income countries between 2000 and 2018.* Nature Medicine. 27,10.

15. School of Media and Communication Studies

864. Saeed M., Farooq T., Khan M.A., Mahmood N. *Perception of electronic news media of Pakistan in the digital age.* Asian Journal for Public Opinion Research. 9,3.
865. Ali F., Awais M., Faran M. *Social media use and political polarization: The mediating role of political engagement and political loyalty.* International Journal of Media and Information Literacy. 6,1.
866. Hassan A., Khan M.H., Ziberi D. *Communication barriers and process of feedback in social interactions.* International Journal of Media and Information Literacy. 6,1.
867. Saeed M. *Newspapers and dynamics of religious communication: The test case of Sufi news.* Journal of Islamic Thought and Civilization. 11,1.
868. Ittefaq M., Ejaz W., Jamil S., Iqbal A., Arif R. *Discriminated in Society and Marginalized in Media: Social Representation of Christian Sanitary Workers in Pakistan.* Journalism Practice.
869. Khan M.H., Qazalbash F., Adnan H.M., Yaqin L.N., Khuhro R.A. *Trump and Muslims: A Critical Discourse Analysis of Islamophobic Rhetoric in Donald Trump's Selected Tweets.* SAGE Open. 11,1.

870. **Ittefaq M., Abwao M., Rafique S.** *Polio vaccine misinformation on social media: turning point in the fight against polio eradication in Pakistan.* Human Vaccines and Immunotherapeutics. 17,8.

16. School of Pharmacy

871. **Altalhi F., Altalhi A., Maglia Z., Abushal Z., Althaqafi A., Falemban A., Cheema E., Dehele I., Ali M.** *Development and evaluation of clinical reasoning using 'think aloud' approach in pharmacy undergraduates - A mixed-methods study.* Saudi Pharmaceutical Journal. 29,11.
872. **Elnaem M.H., Kamarudin N.H., Syed N.K., Huri H.Z., Dehele I.S., Cheema E.** *Associations between socio-demographic factors and hypertension management during the covid-19 pandemic: Preliminary findings from Malaysia.* International Journal of Environmental Research and Public Health. 18,17.

17. Institute of Aviation Studies

873. **Qadir A., Le T.K., Malik M., Amedome Min-Dianey K.A., Saeed I., Yu Y., Choi J.R., Pham P.V.** *Representative 2D-material-based nanocomposites and their emerging applications: a review.* RSC Advances. 11,39.
874. **Asim A.** *Ultraviolet vortex generation through all-dielectric nano-antennas for free space optical communication.* Progress in Electromagnetics Research Letters. 96.

18. Institute of Liberal Arts

Department of English and Literary Studies

875. **Parveen S., Anwar N.** *Resurrection of the self: A comparative thematic study of Rumi's selected poems and Hesse's Siddhartha.* Journal of Islamic Thought and Civilization. 11,2.

Department of Linguistics and Communications

876. **Ali N., Rafi M.S.** *Bilingual aphasia test in Urdu and its clinical implications.* Pakistan Journal of Medical Sciences. 37,5.

19. Miscellaneous

Housing Research Centre

877. **Malik S., Tariq F.** *Recasting paradigms of institutional analysis and stakeholder analysis in housing research.* Journal of Urban Management. 10,4.

Learning Resource Centre

878. **Mohsin H., Asif A., Fatima M., Rehman Y.** *Potential role of viral metagenomics as a surveillance tool for the early detection of emerging novel pathogens.* Archives of Microbiology. 203,3.
879. **Aslam S., Naveed M., Ali N., Awan M.R.** *Research on digital and online resources of academic libraries from 1981 to 2020: A bibliometric analysis.* Library Philosophy and Practice. 2021.
880. **Ali N., Aslam S., Naveed M., Siddique N.** *Fifty Six Years Research Productivity of Library Resources and Technical Services: A Bibliometric Analysis.* Library Philosophy and Practice. 2021.
881. **Naveed M., Ali N., Aslam S., Siddique N.** *Research Output of The Library Quarterly: A Bibliometric Analysis during 2010-2019.* Library Philosophy and Practice. 2021.
882. **Naveed M., Aslam S., Ali N., Siddique N.** *Research Visualization of Journal of Library Administration (2005-2020): A Bibliometric Study.* Library Philosophy and Practice. 2021.
883. **Aslam M.S., Ali M.N., Naveed M.M., Mairaj D.M.I.** *Research Productivity of Journal of Librarianship and Information Science from 1999-2019: A Bibliometric Study.* Library Philosophy and Practice. 2021.
884. **Aslam S., Awan M.R., Ali N.** *Study Culture among College Graduate Students in Electronic Era.* Library Philosophy and Practice. 2021.

ACCT. DPTT

885. **Mehmood U., Askari M.U., Saleem M.** *The assessment of environmental sustainability: The role of research and development in ASEAN countries.* Integrated Environmental Assessment and Management.

ORIC

886. **Nisar H., Wajid B., Shahid S., Anwar F., Wajid I., Khatoon A., Sattar M.U., Sadaf S.** *Whole-genome sequencing as a first-tier diagnostic framework for rare genetic diseases.* Experimental Biology and Medicine. 246, 24.
887. **Rehman K.U., Aslam F., Mata M.N., Martins J.M., Lourenç A.M., Abreu A., Mariam S.** *Impact of entrepreneurial leadership on product innovation performance: intervening effect of absorptive capacity, intra-firm networks, and design thinking.* Sustainability (Switzerland). 13,13.
888. **Shah H., Shakir H.A., Safi S.Z., Ali A.** *Hippophae rhamnoides mediate gene expression profiles against keratinocytes infection of Staphylococcus aureus.* Molecular Biology Reports. 48,2.
889. **Haq N.U., Shirwani A.H.K.** *Examining the impact of coronavirus on stock markets: Investigating the cointegration and transmission of shocks between China and the world's largest stock markets.* International Journal of Business and Emerging Markets. 13,2.
890. **Asghar A., Naveed M.A.** *Psychometric Evaluation of Knowledge Sharing Behavior Scale in Academic Environment.* Library Philosophy and Practice. 2021.
891. **Shaukat R., Ali N., Naveed M.A.** *Mapping the Literature on Health Literacy related to Covid-19 Pandemic: A Scientometric Analysis.* Library Philosophy and Practice. 2021.
892. **Shaukat R., Asghar A., Naveed M.A.** *Impact of Health Literacy on Fear of Covid-19, Protective Behavior, and Conspiracy Beliefs: University Students' Perspective.* Library Philosophy and Practice. 2021.
893. **Shaukat R., Naveed M.A.** *Health Literacy of University Students in Covid-19 Pandemic and Infodemic: A Pakistani Perspective.* Library Philosophy and Practice. 2021.

20. Sialkot Campus

894. Sheikh M.F., Kamal K., Rafique F., Sabir S., Zaheer H., Khan K. *Corrosion detection and severity level prediction using acoustic emission and machine learning based approach.* Ain Shams Engineering Journal. 12,4.
895. Malik A. *A study of Levi-Civita's cylindrical solutions in $f(R, \phi)$ gravity.* European Physical Journal Plus. 136,11.
896. Malik A., Nafees A. *Existence of static wormhole solutions using $f(R, \phi, X)$ theory of gravity.* New Astronomy. 89.
897. Malik A., Ahmad M., Mahmood S. *Some dark energy cosmological models in $f(R, \phi)$ gravity.* New Astronomy. 89.
898. Shamir M.F., Malik A., Mustafa G. *Noncommutative wormhole solutions in modified $f(R)$ theory of gravity.* Chinese Journal of Physics. 73.
899. Jiatong W., Murad M., Bajun F., Tufail M.S., Mirza F., Rafiq M. *Impact of Entrepreneurial Education, Mindset, and Creativity on Entrepreneurial Intention: Mediating Role of Entrepreneurial Self-Efficacy.* Frontiers in Psychology. 12.
900. Ullah K., Basit A., Ullah Z., Aslam S., Herodotou H. *Automatic generation control strategies in conventional and modern power systems: A comprehensive overview.* Energies. 14,9.
901. Hannan A., Hussain F., Ali N., Ehatisham-Ul-Haq M., Ashraf M.U., Alghamdi A.M., Alfakeeh A.S. *A decentralized hybrid computing consumer authentication framework for a reliable drone delivery as a service.* PLoS ONE. 16,4-Apr.
902. Ali A., Chartrand G., Hallas J., Zhang P. *Extremal problems in royal colorings of graphs.* Journal of Combinatorial Mathematics and Combinatorial Computing. 116.
903. Shamir M.F., Malik A. *Bardeen compact stars in modified $f(R)$ gravity.* Chinese Journal of Physics. 69.

904. Younis H.B., Kamal K., Sheikh M.F., Iqbal S. *Prediction of Fatigue Crack Length in Aircraft Aluminum Alloys using Radial Basis Function Neural Network*. Proceedings of 18th International Bhurban Conference on Applied Sciences and Technologies, IBCAST 2021.
905. Hussain M. *Psychological Constructs and Dysfunctional Eating in Pakistani University Students*. Journal of Muslim Mental Health. 15,2.
906. Ashraf M.U., Eassa F.A., Osterweil L.J., Albeshri A.A., Algarni A., Ilyas I. *Aap4all: An adaptive auto parallelization of serial code for HPC systems*. Intelligent Automation and Soft Computing. 30,2.
907. Ahmad B., Iqbal S., Hai M., Latif S. *The interplay of personal values, relational mobile usage and organizational citizenship behavior*. Interactive Technology and Smart Education.
908. Iram T., Bilal A.R., Latif S. *Is Awareness That Powerful? Women's Financial Literacy Support to Prospects Behaviour in Prudent Decision-making*. Global Business Review.

21. Knowledge Unit of Business, Economics, Accountancy and Commerce

909. Chien F., Ananze M., Mirza F., Bakar A., Vu H.M., Ngo T.Q. *The effects of green growth, environmental-related tax, and eco-innovation towards carbon neutrality target in the US economy*. Journal of Environmental Management. 299.
910. Huang J., Wang X., Liu H., Iqbal S. *Financial Consideration of Energy and Environmental Nexus with Energy Poverty: Promoting Financial Development in G7 Economies*. Frontiers in Energy Research. 9.
911. Farrukh M., Raza A., Meng F., Wu Y., Gu Z. *Shaping social marketing research: a retrospective of the journal of social marketing*. Journal of Social Marketing. 11,4.
912. Farrukh M., Raza A., Sajid M., Rafiq M., Hameed R., Ali T. *Entrepreneurial intentions: the relevance of nature and nurture*. Education and Training. 63,8-Jul.
913. Ma Y., Faraz N.A., Ahmed F., Iqbal M.K., Saeed U., Mughal M.F., Raza A. *Curbing nurses' burnout during COVID-19: The roles of servant leadership and psychological safety*. Journal of Nursing Management. 29,8.

914. Abdur Rehman M., Soroya S.H., Abbas Z., Mirza F., Mahmood K. *Understanding the challenges of e-learning during the global pandemic emergency: the students' perspective.* Quality Assurance in Education. 29,3-Feb.
915. Li W., Chien F., Ngo Q.-T., Nguyen T.-D., Iqbal S., Bilal A.R. *Vertical financial disparity, energy prices and emission reduction: Empirical insights from Pakistan.* Journal of Environmental Management. 294.
916. Bhutta U., Martins J.N., Mata M.N., Raza A., Dantas R.M., Correia A.B., Rafiq M. *Intellectual structure and evolution of accounting conservatism research: Past trends and future research suggestions.* International Journal of Financial Studies. 9,3.
917. Li W., Chien F., Hsu C.-C., Zhang Y., Nawaz M.A., Iqbal S., Mohsin M. *Nexus between energy poverty and energy efficiency: Estimating the long-run dynamics.* Resources Policy. 72.
918. Wu Y., Farrukh M., Raza A., Meng F., Alam I. *Framing the evolution of the corporate social responsibility and environmental management journal.* Corporate Social Responsibility and Environmental Management. 28,4.
919. Raza A., Farrukh M., Iqbal M.K., Farhan M., Wu Y. *Corporate social responsibility and employees' voluntary pro-environmental behavior: The role of organizational pride and employee engagement.* Corporate Social Responsibility and Environmental Management. 28,3.
920. Iqbal S., Bilal A.R., Nurunnabi M., Iqbal W., Alfakhri Y., Iqbal N. *It is time to control the worst: testing COVID-19 outbreak, energy consumption and CO₂ emission.* Environmental Science and Pollution Research. 28,15.
921. Iram R., Anser M.K., Awan R.U., Ali A., Abbas Q., Chaudhry I.S. *Prioritization of renewable solar energy to prevent energy insecurity: An integrated role.* Singapore Economic Review. 66,2.
922. Zhang L., Huang F., Lu L., Ni X., Iqbal S. *Energy financing for energy retrofit in COVID-19: Recommendations for green bond financing.* Environmental Science and Pollution Research.
923. Iqbal S., Bilal A.R. *Energy financing in COVID-19: how public supports can benefit?* China Finance Review International.

924. **Farrukh M., Raza A., Ansari N.Y., Bhutta U.S.** *A bibliometric reflection on the history of green human resource management research.* Management Research Review.
925. **Bouichou S.I., Wang L., Feroz H.M.B.** *How corporate social responsibility perceptions affect employees' positive behavior in the hospitality industry: moderating role of responsible leadership.* International Review on Public and Nonprofit Marketing.
926. **Farrukh M., Raza A., Waheed A.** *Your network is your net worth: political ties and innovation performance.* European Journal of Innovation Management.
927. **Iqbal S., Taghizadeh-Hesary F., Mohsin M., Iqbal W.** *Assessing the Role of the green finance index in environmental pollution reduction.* Estudios de Economia Aplicada. 39,3.
928. **Farrukh M., Ansari N.Y., Raza A., Meng F., Wang H.** *High-performance work practices do much, but H.E.R.O does more: an empirical investigation of employees' innovative behavior from the hospitality industry.* European Journal of Innovation Management.
929. **Farrukh M., Meng F., Raza A.** *Believe they can succeed, and they will: intrapreneurial behavior and leadership.* European Journal of Innovation Management.
930. **Iqbal M.K., Raza A., Ahmed F., Faraz N.A., Bhutta U.S.** *Research on influencing mechanism of big five personality traits on customers online purchase intention: A mediating role of trust.* International Journal of Electronic Business. 16,1.
931. **Farrukh M., Shahzad I.A., Meng F., Wu Y., Raza A.** *Three decades of research in the technology analysis & strategic management: a bibliometrics analysis.* Technology Analysis and Strategic Management. 33,9.
932. **Ansari N.Y., Farrukh M., Raza A.** *Green human resource management and employees pro-environmental behaviours: Examining the underlying mechanism.* Corporate Social Responsibility and Environmental Management. 28,1.

22. Knowledge Unit of Systems and Technology

933. Hannan A., Shafiq M.Z., Hussain F., Pires I.M. *A portable smart fitness suite for real-time exercise monitoring and posture correction.* Sensors. 21,19.
934. Iqbal M.W., Ch N.A., Shahzad S.K., Naqvi M.R., Khan B.A., Ali Z. *User Context Ontology for Adaptive Mobile-Phone Interfaces.* IEEE Access. 9.
935. Tariq S., Cheema S.M. *Approaches for Non-Functional Requirement Modeling: A Literature Survey.* Proceedings - 2021 IEEE 4th International Conference on Computing and Information Sciences, ICCIS 2021.
936. Tariq S., Ibrahim A., Usama A., Shahbaz M.S. *An Overview of Requirements Elicitation Techniques in Software Engineering with a focus on Agile Development.* Proceedings - 2021 IEEE 4th International Conference on Computing and Information Sciences, ICCIS 2021.
937. Hirra I., Ahmad M., Hussain A., Ashraf M.U., Saeed I.A., Qadri S.F., Alghamdi A.M., Alfakeeh A.S. *Breast Cancer Classification from Histopathological Images Using Patch-Based Deep Learning Modeling.* IEEE Access. 9.

23. Knowledge Unit of Science

938. Ali A., Idrees T. *A note on polyomino chains with extremum general sum-connectivity index.* Communications in Combinatorics and Optimization. 6,1.
939. Ahmed S. *On the maximum general sum-connectivity index of trees with a fixed order and maximum degree.* Discrete Mathematics, Algorithms and Applications. 13,4.
940. Ali A., Du Z., Zaineb S.S., Alraqad T. *On the second maximum Wiener polarity index of chemical trees of a fixed order.* International Journal of Quantum Chemistry. 121,11.
941. Kanwal A., Aslam A., Raza Z., Iqbal N., Kometa B.K. *On the variable sum exdeg index and cut edges of graphs.* Communications in Combinatorics and Optimization. 6,2.

942. **Masood A., Maheen S., Khan H.U., Shafqat S.S., Irshad M., Aslam I., Rasul A., Bashir S., Zafar M.N.** *Pharmaco-Technical Evaluation of Statistically Formulated and Optimized Dual Drug-Loaded Silica Nanoparticles for Improved Antifungal Efficacy and Wound Healing.* ACS Omega. 6,12.
943. **Du Z., Ali A., Rafee R., Raza Z., Jamil M.K.** *On the first two extremum Zagreb indices and coindices of chemical trees.* International Journal of Quantum Chemistry. 121,6.
944. **Albalahi A.M., Ali A., Zafar T., Mohammed W.W.** *Some Bond Incident Degree Indices of (Molecular) Graphs with Fixed Order and Number of Cut Vertices.* Discrete Dynamics in Nature and Society. 2021.
945. **Ali A., Nadeem A., Raza Z., Mohammed W.W., Elsayed E.M.** *On the Reformulated Multiplicative First Zagreb Index of Trees and Unicyclic Graphs.* Discrete Dynamics in Nature and Society. 2021.
946. **Ali A., Iqbal W., Raza Z., Ali E.E., Liu J.-B., Ahmad F., Chaudhry Q.A.** *Some Vertex/Edge-Degree-Based Topological Indices of r -Apex Trees.* Journal of Mathematics. 2021.
947. **Ali A., Das K.C., Dimitrov D., Furtula B.** *Atom-bond connectivity index of graphs: A review over extremal results and bounds.* Discrete Mathematics Letters. 5.
948. **Noureen S., Bhatti A.A., Ali A.** *A Note on the Minimum Wiener Polarity Index of Trees with a Given Number of Vertices and Segments or Branching Vertices.* Discrete Dynamics in Nature and Society. 2021.
949. **Ali A., Furtula B., Gutman I., Vukicevic D.** *Augmented zagreb index: Extremal results and bounds.* Match. 85,2.
950. **Adeeb E., Sohn C.H.** *Flow and Heat Transfer Characteristics of Cylindrical Structures with Corner Radius Variation: Tandem, SIDE-BY-SIDE, and Flow-Induced Vibration.* Heat Transfer Engineering. 42,4-Mar.
951. **Abbas M.W., Hussain M., Qamar M., Ali S., Shafiq Z., Wilairatana P., Mubarak M.S.** *Antioxidant and anti-inflammatory effects of peganum harmala extracts: An in vitro and in vivo study.* Molecules. 26,19.

952. Arshad F., Umbreen H., Aslam I., Hameed A., Aftab K., Al-Qahtani W.H., Aslam N., Noreen R. *Therapeutic Role of Mango Peels in Management of Dyslipidemia and Oxidative Stress in Obese Females*. BioMed Research International. 2021.
953. Altaf F., Batool R., Rehman Z.U., Majeed H., Hashmi M.Z., Bibi A., Ghani L., Abbas G., Jacob K. *Synthesis and Performance Study of Pd/CeO₂ Composite Catalyst for Enhanced MOR Activity*. Journal of Electronic Materials. 50,12.
954. Altaf F., Batool R., Gill R., Rehman Z.U., Majeed H., Ahmad A., Shafiq M., Dastan D., Abbas G., Jacob K. *Synthesis and electrochemical investigations of ABPBI grafted montmorillonite based polymer electrolyte membranes for PEMFC applications*. Renewable Energy. 164.
955. Saleem M., Tufail M.N., Chaudhry Q.A. *Unsteady MHD Casson fluid flow with heat transfer passed over a porous rigid plate with stagnation point flow: Two-parameter Lie scaling approach*. Pramana - Journal of Physics. 95,1.
956. Nazim Tufail M., Zaib F. *Symmetry analysis of MHD Casson fluid flow for heat and mass transfer near a stagnation point over a linearly stretching sheet with variable viscosity and thermal conductivity*. Heat Transfer. 50,6.
957. Nazim Tufail M., Saleem M., Ali Chaudhry Q. *Two-parameter Lie convective Casson fluid scale study with MHD, joule heating and viscous dissipation influences*. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science. 235, 17.
958. Saleem M., Tufail M.N., Chaudhry Q.A. *Retraction Note: One-parameter scaling transformations of Maxwell nanofluid with Ludwig-Soret and pedesis motion passed over stretching-shrinking surfaces (Microfluidics and Nanofluidics, (2021), 25, 3, (28), 10.1007/s10404-021-02431-0)*. Microfluidics and Nanofluidics. 25,8.
959. Chu Y.-M., Shafiq M.K., Imran M., Siddiqui M.K., Siddiqui H.M.A., Baby S., Cancan M. *The Sharp Bounds of Zagreb Indices on Connected Graphs*. Journal of Mathematical Inequalities. 15,2.
960. Zulqarnain R.M., Siddique I., Ali R., Pamucar D., Marinkovic D., Bozanic D. *Robust aggregation operators for intuitionistic fuzzy hyper-soft set with their application to solve mcdm problem*. Entropy. 23,6.

961. **Zulqarnain R.M., Siddique I., Asif M., Ahmad S., Broumi S., Ayaz S.** *Similarity Measure for m-Polar Interval Valued Neutrosophic Soft Set with Application for Medical Diagnoses.* Neutrosophic Sets and Systems. 47.
962. **Liu J.-B., Ali H., Shafiq M.K., Dustigeer G., Ali P.** *On Topological Properties of Planar Octahedron Networks.* Polycyclic Aromatic Compounds.
963. **Asif M., Mairaj S., Saeed Z., Ashraf M.U., Jambi K., Zulqarnain R.M.** *A Novel Image Encryption Technique Based on Möbius Transformation.* Computational Intelligence and Neuroscience. 2021.
964. **Zulqarnain R.M., Siddique I., Ahmad S., Iampan A., Jovanov G., Vranješ J., Vasiljević J.** *Pythagorean Fuzzy Soft Einstein Ordered Weighted Average Operator in Sustainable Supplier Selection Problem.* Mathematical Problems in Engineering. 2021.
965. **Zulqarnain R.M., Siddique I., Iampan A., Bonyah E.** *Algorithms for Multipolar Interval-Valued Neutrosophic Soft Set with Information Measures to Solve Multicriteria Decision-Making Problem.* Computational Intelligence and Neuroscience. 2021
966. **Zulqarnain R.M., Siddique I., Ahmad S., Ayaz S., Broumi S.** *An Algorithm Based on Correlation Coefficient under Neutrosophic hypersoft set environment with its Application for Decision-Making.* Neutrosophic Sets and Systems. 46.
967. **Zheng J., Akhter S., Iqbal Z., Shafiq M.K., Aslam A., Ishaq M., Aamir M.** *Irregularity Measures of Subdivision Vertex-Edge Join of Graphs.* Journal of Chemistry. 2021.

24. Knowledge Unit of Engineering

968. **Khalid A., Jaffery M.H., Javed M.Y., Yousaf A., Arshad J., Rehman A.U., Haider A., Althobaiti M.M., Shafiq M., Hamam H.** *Performance analysis of mars-powered descent-based landing in a constrained optimization control framework.* Energies. 14,24.
969. **Kabir A.M., Kamal M., Ahmad F., Ullah Z., Albogamy F.R., Hafeez G., Mehmood F.** *Optimized economic load dispatch with multiple fuels and valve-point effects using hybrid genetic-artificial fish swarm algorithm.* Sustainability (Switzerland). 13,19.

970. Khan I., Abid M.A., Ullah K., Ullah Z., Haider A., Ahmad F.A., Zia Z., Ali S.M. *Multi-aging Effects on Vegetable Based Oils for Transformer Insulation in HV Systems.* Journal of Electrical Engineering and Technology. 16,5.
971. Rahman A., Abas N., Dilshad S., Saleem M.S. *A case study of thermal analysis of a solar assisted absorption air-conditioning system using R-410A for domestic applications.* Case Studies in Thermal Engineering. 26.
972. Rehman S., Khan B., Arif J., Ullah Z., Aljuhani A.J., Alhindhi A., Ali S.M. *Bi-directional mutual energy trade between smart grid and energy districts using renewable energy credits.* Sensors. 21,9.
973. Al Rashid A., Ahmed W., Khalid M.Y., Koñ M. *Vat photopolymerization of polymers and polymer composites: Processes and applications.* Additive Manufacturing. 47.
974. Khalid M.Y., Al Rashid A., Arif Z.U., Ahmed W., Arshad H., Zaidi A.A. *Natural fiber reinforced composites: Sustainable materials for emerging applications.* Results in Engineering. 11.
975. Khalid M.Y., Al Rashid A., Arif Z.U., Ahmed W., Arshad H. *Recent advances in nanocellulose-based different biomaterials: types, properties, and emerging applications.* Journal of Materials Research and Technology. 14.
976. Khalid M.Y., Arif Z.U., Sheikh M.F., Nasir M.A. *Mechanical characterization of glass and jute fiber-based hybrid composites fabricated through compression molding technique.* International Journal of Material Forming. 14,5.
977. Arif Z.U., Khalid M.Y., ur Rehman E., Ullah S., Atif M., Tariq A. *A review on laser cladding of high-entropy alloys, their recent trends and potential applications.* Journal of Manufacturing Processes. 68.
978. Khalid M.Y., Al Rashid A., Arif Z.U., Sheikh M.F., Arshad H., Nasir M.A. *Tensile strength evaluation of glass/jute fibers reinforced composites: An experimental and numerical approach.* Results in Engineering. 10.
979. Khalid M.Y., Al Rashid A., Sheikh M.F. *Effect of Anodizing Process on Inter Laminar Shear Strength of GLARE Composite through T-Peel Test: Experimental and Numerical Approach.* Experimental Techniques. 45,2.

980. Khalid M.Y., Rashid A.A., Arif Z.U., Akram N., Arshad H., MÃjirquez F.P.G. *Characterization of failure strain in fiber reinforced composites: Under on-axis and off-axis loading.* Crystals. 11,2.
981. Abbas S., Li F., Abbas Z., Ur Rehman Abbasi T., Tu X., Pasha R.A. *Experimental study of effect of temperature variations on the impedance signature of pzt sensors for fatigue crack detection.* Sound and Vibration. 55,1.
982. Khalid M.Y., Arif Z.U., Ahmed W., Arshad H. *Evaluation of tensile properties of fiber metal laminates under different strain rates.* Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering.
983. Khalid M.Y., Arif Z.U., Al Rashid A. *Investigation of Tensile and Flexural Behavior of Green Composites along with their Impact Response at Different Energies.* International Journal of Precision Engineering and Manufacturing - Green Technology.
984. Khalid M.Y., Al Rashid A., Sheikh M.F. *Correction to: Effect of Anodizing Process on Inter Laminar Shear Strength of GLARE Composite through T-Peel Test: Experimental and Numerical Approach (Experimental Techniques, (2021), 10.1007/s40799-020-00433-1).* Experimental Techniques.
985. Li Z., Zhao L., Li J., Zhao Y., Xu T., Liu Z., Luo G., Zhang S., Hu K., Hoffman T., Saghir S., Lu D., Zhang W., Jiang Z. *Nonlinear behavior analysis of electrostatically actuated multilayer anisotropic microplates with residual stress.* Composite Structures. 255.

25. Knowledge Unit of Social Sciences and Humanities

986. Safdar M., Yasmin M., Anwar B. *English for specific purpose through facilitated and nonfacilitated MOOCs: An analysis of the learners' perspectives.* Computer Applications in Engineering Education. 29,4.

NO AFFILIATIONS

987. Ahmed M., Farooq M.S., Ibrar-Ul-Haque M., Ahmed M., Maqbool H., Yousaf A. *Application of Blockchain in Green Energy for Sustainable Future.* 7th International Conference on Engineering and Emerging Technologies, ICEET 2021.

Table 1 Breif Detail of Publish Articles

Research Publications Detail	
Row Labels	Number of Publications
UMT Campus	
Publication Without School/ Department Affiliation	70
HSM	103
Publication Without Department Affiliation	38
Banking and Finance	7
State & Economics	34
Information Systems	9
Management	8
Marketing	1
Operations and Supply Chain	2
Department of Quantitative Method	4
SST	98
Publication Without Department Affiliation	23
Software Engineering	20
Computer Science	47
Informatics and Systems	8
School of Social Science and Humanities	18
Publication Without Department Affiliation	4
Department of Education	6
Department of Political Scince and International Relations	7
Department of Sociology	1
School of Professionl Advancement	3
School of Professional Psychology	22

Publication Without Department Affiliation	5
Department of Applied Psychology	1
Department of Clinical Psychology	16
School of Design and Textiles	9
Design and Textiles	9
School of Engineerin	52
Publication Without Department Affiliation	4
Department of Civil Engineering	26
Department of Electrical Engineering	14
Department of Industrial Engineering	1
Department of Mechanical Engineering	7
School of Governance and Society	0
School of Governance and Society	0
School of Health Sciences	18
Publication Without Department Affiliation	8
Department of basic medical sciences	6
Department of Medical imaging	1
Department of Nutrion Science	1
Department of Physical medicine and Rehabilitation	2
School of Architecture and Planning	10
Publication Without Department Affiliation	2
Department of Architecture	1
Department of City and Regional Planning	7
School of Science	430
Publication Without Department Affiliation	5
Department of Physics	16
Department of Mathematics	291
Department of Chemistry	48
Department of Life Sciences	70
School of Food and Agricultural Sciences	29

Food and Agricultural Sciences	29
School of Media and Communication studies	7
Media and Communication studies	7
School of Pharmacy	2
School of Pharmacy	2
Institute of Aviation Studies	2
Institute of Aviation Studies	2
Institute of Libaral Arts	2
Department of english and literary studies	1
Department of linguistics and communications	1
Miscelleanous	18
Housing Research Center	1
Learning Resource Center	7
Account Department	1
ORIC	9
Sialkot	
Publication Without School/ Department Affiliation	15
KUBEAC	33
KUBEAC	33
KUST	5
KUST	5
KUS	30
KUS	30
KUE	17
KUE	17
KUSSH	1
KUSSH	1