











INTERNATIONAL MERITORIOUS  
MULTIDISCIPLINARY VIRTUAL  
CONFERENCE (IMMVC) - 2020

# International Meritorious Multidisciplinary Virtual Conference (IMMVC) 2020



 <p>Forum for International Relations Development (UK)</p>	 <p>Department of Economics Abdul Wali Khan University Mardan, Pakistan</p>	 <p>The Govt. Sadiq College Women University, Bahawalpur</p>	 <p>The Women University Multan, Pakistan</p>	
 <p>Peoples University of Medical and Health Sciences Nawabshah, Sindh, Pakistan</p>	 <p>Ch. Pervaiz Elahi Institute of Cardiology Multan</p>	 <p>Fatima Jinnah Women University, Rawalpindi Pakistan</p>	 <p>Pakhtunkhwa Economic Policy Research Institute</p> <p>Pakhtunkhwa Economic Policy Research Institute Abdul Wali Khan University Mardan, Pakista</p>	 <p>ORIC, Quaid-e-Awam University of Engineering, Science &amp; Technology Nawabshah, Sindh, Pakistan</p>

# International Meritorious Multidisciplinary Virtual Conference (IMMVC) 2020 Inaugurated by

**His Excellency Chaudhry Mohammad Sarwar In Governor House Punjab, Lahore**

## Governor / Chancellor's Message

“ I Pray that, Allah Help us in combating post corona challenges. I appreciate Toaha Qureshi, Syed Muzaffar Hussain & their team for organizing this conference with the help of Allah Almighty we have successfully contained spread of Covid-19. May Allah help you in completion of Nobel and illustrious goals of your life. ”

Chaudhry Mohammad Sarwar



## Message

It was of course immense pleasure and honor for me to be key note speaker at the International Meritorious Multi-Disciplinary Virtual Conference 2020 organized by Meritorious Group of Publication with many well renowned Partners such as Forum for International Relations Development (FIRD) UK and 8 Universities for various countries. This conference attracted many Vice Chancellors, Registrars, Professors, researchers and students. To hold such a conference in very testing times was not an easy task but the team at Meritorious Research Centre (MRC) worked tirelessly to attract many academics. I am personally indebted to His Excellence the Governor of Punjab Ch Muhammad Sarwar for his speech at the opening session of the conference at the Governor House, Lahore. This conference has successfully achieved its objective by attracting numerous academics to restart research work from many disciplines such as medical, pure, applied and social Sciences. Number of research papers were attracted from engineering, economics, religion and Management Sciences.

As a keynote speaker, I effectively took part in all of its sessions i.e. opening at the Governor House, pre-conference research workshop and round table discussion on "Constructing Post-Corona Paradigm: Challenges and solutions"

In this round table discourse, I emphasized the challenges and solutions to the impact that the coronavirus pandemic has left on businesses and people around the world counting costs and wondering what recovery could look like. For example, Financial impact as the FTSE, Dow Jones Industrial Average and the Nikkei all saw huge falls as the number of Covid-19 cases grew. Risk of recession as IMF says that the global economy will shrink by 3% this year. It described the decline as the worst since the Great Depression of the 1930s. Unemployment rates have increased across major economies as a result. Millions of workers have also been put on government-supported job retention schemes as parts of the economy, such as tourism or hospitality, came to a standstill under lockdown. The travel industry has been badly damaged, with airlines cutting flights and customers cancelling business trips and holidays. Demand for oil all but dried up as lockdowns across the world kept people inside. Consumer confidence also saw unprecedented lows as shoppers stayed at home in a bid to stop the spread of Covid-19. Research work for vaccine and the role World Health Organization including the universities such as Oxford and Imperial UK.

Overall, it was a very well-organized conference with very innovative approach.

Kind Regards

Mr. Toaha Qureshi MBE  
Member of the Order of the British Empire  
Chairman: FIRD  
Forum for International Relations Development, UK



## Message

I am truly delighted to be invited as a keynote speaker at the International Meritorious Multi-Disciplinary Virtual Conference 2020 organized by Meritorious Group of Publication. It was indeed a great honor and privilege to participate in this event along with renowned academicians, researchers from various universities and Forum for International Relations Development (FIRD) UK. Congratulations to the organizing team for the excellent work. The deadly Coronavirus has become a threat to mankind and combating this dreadful pandemic would need the strength of the Almighty. The communion of subject matter experts to discuss on this topic was a timely effort and outcome was indeed encouraging. I was able to share on the topic of adopting the new norm of Covid and adherence of standard operating procedure (SOP) mandated by the Malaysian government. It was more focused towards special children, their behavior, social compliance, social obedience, timeframe for acceptance and challenges faced by teachers and parents in implementing the changes. In conclusion, the conference theme on Covid was appropriate and relevant to the current world agenda and the discussions would greatly benefit global communities.

Kind Regards

Dr. Saralah Devi Mariamdarani

Senior Lecturer/Assist. Professor

Department of Psychology & Social Work, School of Social Development, College of Arts and Sciences.

Universiti Utara Malaysia Sintok, Kedah Malaysia



## "اظہار تشکر"

میرے محترم ماہرین تعلیم، دانشور، محققین، اساتذہ کرام، طلباء و طالبات

اسلام و علیکم؛ نہایت خوش کن امر ہے کہ ہم نے کرونائی دور میں جسمانی دوری کے رائج ضابطے کے دوران کچھ علمی دوستوں کے ہمراہ ایک بین الاقوامی متنوع موضوعاتی کانفرنس منعقد کرنے کا بیڑا اٹھایا۔ اس پر جان سے پیارے استاد محترم نامور ماہر نفسیات پروفیسر خالد سعید صاحب نے اس سلسلے میں ہماری سرپرستی فرمائی اور ڈاکٹر ثروت صاحبہ چیئرمین شعبہ اطلاقی نفسیات بہاء والدین زکریا یونیورسٹی نے حوصلہ بڑھایا۔ اسی طرح ملائیشیا سے میری سپروائزر صاحبان ڈاکٹر سارالہ دیوی اور ڈاکٹر نبیہہ ابراہیم کی شفقت دم بہ دم میرے ساتھ رہی۔ اس علمی سفر کا ایک اہم سنگ میل طے کرنے میں مسٹر طحہ قریشی (ممبر برٹش ایسپائر) نے جس پر خلوص طریقے سے ہماری راہنمائی فرمائی ہے وہ ناقابل فراموش ہے۔ اس بین الاقوامی کانفرنس کا افتتاح عزت مآب گورنر پنجاب چوہدری محمد سرور صاحب نے گورنر ہاؤس میں فرمایا۔ اس عزت افزائی کے لیے ہم ان کے مشکور ہیں۔ ہمارے درینہ دوست طاہر ثقلین قریشی اور کانفرنس کی منتظمین پر مشتمل کمیٹی کی شب و روز کی محنت اور کاوش بھی سنہری حروف لکھنے کے لائق ہے۔ جن دوست احباب نے اس علمی کارخیز میں ہماری معاونت فرمائی ہے ہم دل و جان سے ان کی محبت کے مقروض ہیں۔ اور اس کامیابی پر بطور شکرانہ ہم خداوند عظیم کے حضور سر بسجود ہیں۔



سید مظفر حسین (فوکل پرسن کانفرنس ہذا)

ماہر نفسیات و ذہنی معالجہ

بی۔ ایچ۔ ڈی۔ سکالر ملائیشیا

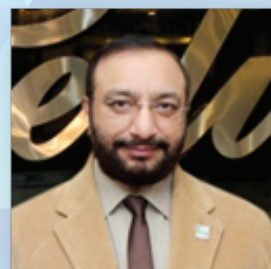
مینجنگ ڈائریکٹر: میریٹورس گروپ آف پبلیکیشنز

## Message

It is a great honor for me to welcome you to the "International Meritorious Multidisciplinary Virtual Conference (IMMVC) 2020" held by Meritorious Group of Publication hosted by CPEIC Multan, Pakistan. Research and education have always been my priorities. My aim is to develop CPEIC, a research and academic center of international standards linked with university of Health Sciences, College of Physicians and Surgeons Pakistan and HEC.

This conference is also part of continuing efforts in producing, deliberating, and disseminating knowledge as well as creating research partnerships between faculty members and distinguished scholars from many universities in Pakistan and across the world. I would like to appreciate the Conference Secretary, Key Note Speakers and committee members of the Meritorious Group and who have been working very hard to make this conference possible. I would also like to thank presenters, participants, our reviewers, and publishers of the paper presented in the conferences as well as sponsor or collaboration bodies of this event. I hope you enjoy the conference!  
Thank you abundantly.

Prof. Dr. Rana Altaf Ahmad  
Executive Director  
Ch. Pervaiz Elahi Institute of Cardiology



---

It is a great honor for me to welcome each of you to the first edition of our international conference series, "International Meritorious Multidisciplinary Virtual Conference -2020". As the Meritorious Group of Publications continues to grow and adapt systematic management of manuscript, constructive as well as critical blind review process, this conference has been framed as an exciting time for scientists, academicians, & researchers.

Meritorious Group is orienteering the research wave in Pakistan through commending constructively about the research work which provides modus operandi to the authors to improve their quality of writing. I, on the behalf of Meritorious Group of Publications, will continue to meet and bring inspired people together within forums like this to ensure this group at the cutting edge. I sincerely thank all the management, staff and team members of the Meritorious Group of Publications for hosting the 2020 International Meritorious Multidisciplinary Conference in such an impressive manner. I appeal to the research community to extend their continued support and cooperation to the future activities of the Meritorious Group of Publications.

Dr. Syed Wahid Ali Shah  
Conference Secretary,  
IMMVC 2020



# Keynote & Guest Speakers



**Prof. Dr. Uzma Qureshi**  
**Vice Chancellor**

PhD. University of Birmingham, Birmingham,  
West Midlands  
Post-Doctorate, From University of Cambridge, England  
**The Women University Multan, Pakistan**



**Dr. Saima Hamid**  
**Vice Chancellor**

M.B.B.S. & PhD. in Public Health  
**Fatima Jinnah Women University, Rawalpindi**



**Prof. Dr. Saiqa Imtiaz Asif**  
**Vice Chancellor**

Ph.D. in Linguistics, Lancaster University, UK,  
Post doctorate in Linguistics, Lancaster University, UK  
**The Government Sadiq College Women University**



**Prof: Dr. Gulshan Ali Memon**  
**Vice Chancellor**

F.R.C.S., MS, F.A.C.S  
**Peoples University of Medical and Health Sciences**



**Prof. Dr. Muhammad Saleh Khaskheli**  
**Pro-Vice Chancellor**

M.C.P.S., F.C.P.S Anesthesiology, M.Sc.-Pain Medicine  
**Peoples University of Medical and Health Sciences**



**Prof. Dr. Rana Altaf Ahmad**  
**Executive Director (CPEIC)**

MBBS, DA, FCPS- Ans, M.Sc. (Pain Medicine),  
MPA (Health)



**Prof. Dr. Syed Khawaja Alqma**  
**Dean of Social Sciences (MUL)**

Former Pakistan's Ambassador to Yamen  
Former Vice Chancellor, Bahauddin Zakariya University  
**Minhaj University Lahore, Pakistan**



**Prof. Khalid Saeed**  
**Professor of Psychology**

Educationalist, Head of Psychology Department  
**NCBA&E, SUB-CAMPUS, Multan, Pakistan**

# Keynote & Guest Speakers



**Prof. Dr. Aslam Yousaf**  
**Professor of Pediatric Surgery**

M.B.B.S, Anesthetist

Children Hospital and Institute of Child Health



**Prof. Dr. Maria Isabel Maldonado**  
**Professor: English Language and Literature**

PhD in Spanish Language and General Linguistics (Spain)  
Director, Al Andalus Institute of Languages Editor,  
Eurasian Journal of Humanities

University of Lahore, Pakistan



**Dr. Sarwat Sultan**  
**Chairperson/Associate Professor**

Department of Applied Psychology

Bahauddin Zakariya University Multan, Pakistan



**Dr. Yusuf Suleiman**  
**Senior Lecturer/Assistant Professor**

Department of Educational Management & Counselling  
Al-hikmah University, Kwara State, Nigeria



**Dr. Nabisah Binti Ibrahim**  
**Senior Lecturer/Assistant Professor**

Department of Psychology & Social Work, School of  
Social Development, College of Arts and Sciences

Universiti Utara Malaysia Sintok, Kedah Malaysia



**Dr. Muhammad Azam Khan**  
**Chairman/Associate Prof**

Department of Economics, (AWKU) Mardan Adjunct  
visiting Professor, College Of Business, Universiti  
Utara Malaysia

Abdul Wali Khan University Mardan, PAKISTAN



**Dr Aamir Furqan**  
**Assistant Professor**

FCPS Anaesthesia, FCPS Cardiac Anaesthesia, MCPS- HPE  
Certified Medical Editor CME, Certified online and Distance  
education CODE. Managing Editor Multan Journal of  
Cardiovascular diseases. MD MedTeach.com

Ch. Pervaiz Elahi Institute of Cardiology



**Dr. Muzammil Hussain**  
**Director Graduate Studies**

PhD – Computer Science, University of Malaya, Malaysia  
Assist. Professor : School of Systems & Technology, UMT

University of Management and Technology, Lahore

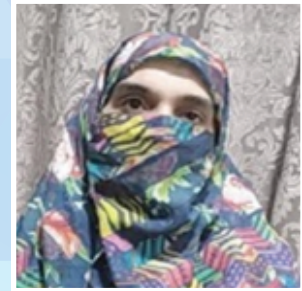
# Reviewers of the Conference



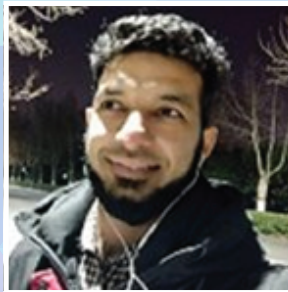
**Dr. Muhammad Ramzan  
Sheikh**



**Prof. Dr. Pardeep Kumar**



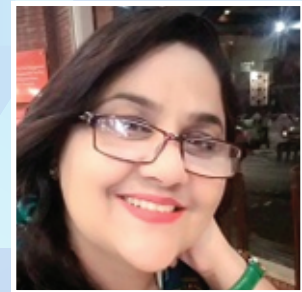
**Dr. Munazzah Meraj**



**Dr. Muhammad Abdul  
Kamal**



**Dr. Ch. Shoaib Akhtar**



**Dr. Shazia Irfan**



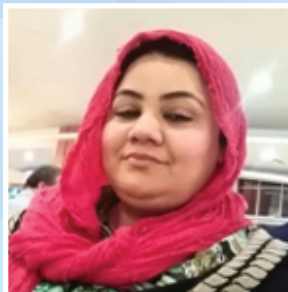
**Dr. Aasma Rani**



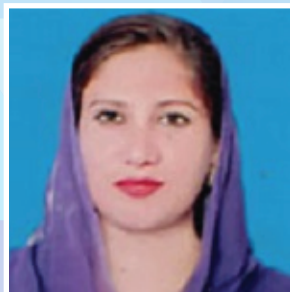
**Dr. Rukhsana Rasheed**



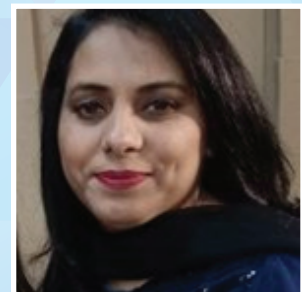
**Dr. Farzana**



**Ms. Aisha Khan**



**Dr. Shehla Parveen**



**Dr. Taseer Salahuddin**



## Reviewers of the Conference



**Dr. Saeed Ahmad**



**Dr. Saba Saeed**



**Ms. Nazia Zafar**



**Ms. Mamona Khan**



**Dr. Nadeem Abbas**



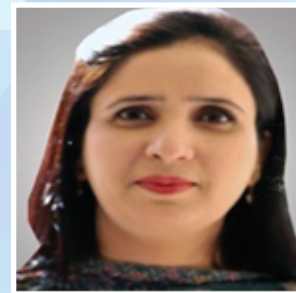
**Ms. Zill-e-Shams**



**Ms. Saima Zainab**



**Dr. Syed Hassan Raza**



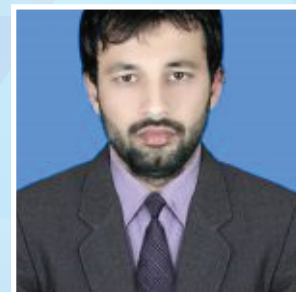
**Ms. Mehrun Nisa**



**Rahat Zubair Malik**



**Mr. Saad Khan**



**Irfan Hussain**

# Management Team

Conference Secretary

**Dr. Syed Wahid Ali**

*Economist, Assistant Professor,  
HOD Economics NCBA&E Multan  
PhD, Economics*



**Universiti Utara Malaysia**

Focal Person of the Conference

**Syed Muzaffar Hussain**

*Psychologist / Trainer,  
Motivational Speaker,  
Certified CBT Professional Psychotherapist,  
PhD Scholar, Applied Psychology*



**Universiti Utara Malaysia**

Conference Coordinator

**Dr. Ahmad Tisman Pasha**

*Lecturer,  
Institute of Banking Finance,  
PhD Universiti Utara Malaysia*



**Bahauddin Zakariya University, Multan  
Pakistan**

Conference Coordinator in Bangladesh

**Mr. Takad Ahmed Chowdhury**

*Associate Professor & former Head,  
Department of English*



**University of Asia Pacific, Dhaka,  
Bangladesh**

Conference Coordinator in America

**Dr. Syed Abul Qasim Sherazi**

*Attending Physician,  
Geisinger Medical Center*



**Danville, PA, USA**

Conference Coordinator for Medical Sciences

**Dr. Syed Zahid Ali**

*Medical Officer,  
Children Hospital Multan,  
MBBS, From Nishtar Medical  
College Multan (UHS)*



**Institute of Child Health Multan, Pakistan**

Conference Coordinator in GSCWU

**Dr. Saima Anjum**

*Assistant Professor,  
Department of Chemistry*



**The Government Sadiq College Women  
University, Bahawalpur Pakistan**

Conference Coordinator in WUM

**Sumera Khalid**

*Lecturer,  
Department of Mass Communication  
Social Media Coordinator, WUM*



**Women University Multan,(WUM) Pakistan**

# Management Team

Director International Relations (MGP)

**Mr. Tahir Saqlain  
Qureshi**

*Former Country Head,  
London College of Business Management  
and Information Technology, UK*



**Meritorious Group of Publications (MGP)**

Conference Coordinator in WUM

**Ms. Maria Kanwal**

*Chairperson/Assistant Professor  
Institute of Management Sciences*



**Women University Multan,(WUM) Pakistan**

Conference Coordinator (UMT)

**Ali Haider Khan**

*PhD, Computer Science,*



**University of Management and Technology,  
Lahore**

Conference Coordinator (KPK)

**Dr. Asif Ali Bangash**

*PhD, Social Studies,  
Universiti Utara Malaysia*



**Kohat University of Science & Technology,  
Pakistan**

Conference Coordinator in Turkey

**Dr. Omar Khalid Bhatti**

*Associate Professor of Management,  
School of Business Istanbul.  
Former, Chief Researcher & Consultant for  
Pakistan on CPAEC*



**Medipol University, Istanbul Turkey**

Conference Coordinator in Malaysia

**Sanan Waheed Khan**

*PhD Scholar, Mass Communication*



**Universiti Putra Malaysia**

Conference Coordinator

**Saqib Nawaz**

*Lecturer,  
Noon Business School*



**University of Sargodha, Sargodha Pakistan**

**Syed Khuram  
Shehzad**

*M.Phil,  
Admin Officer*



**The Women University Multan, Pakistan**

# Working Committee



**Mehak Ejaz**  
Moderator  
Social Media Coordinator



**Rimsha Farooq**  
Media Coordinator



**Sanie Zahra**  
Moderator



**Nadia Azam**  
Research Coordinator



**Mr. Nasir**  
Content Designer



**Kamran Bhatti**  
Logistic Manager



**Shahid Iqbal**  
Logistic Officer



**M. Haider Shafique**  
Content Designer



**Samina Chadder**  
Conference Coordinator



**M. Nadeem Chohan**  
Conference Coordinator



**M. Yaser Saboor**  
Web Designer



**Ather Ummad Khan**  
Content Writer

## Table of Contents

Conference Program / Report.....	<b>Error! Bookmark not defined.</b>
Inaugural Ceremony .....	5
Pre-Conference Workshop .....	5
Conference Day 1, 17-08-2020 .....	6
Conference Day 2, 18-08-2020 .....	7
Conference Day 3, 19-08-2020 .....	8
Virtual Round the Table Discussion, 19-08-2020 .....	9
ABSTRACTS .....	11
1. The Impact of Self-Efficacy on Work Engagement with Mediating Effect of Organizational Trust .....	11
2. The Impact of Corruption and Circular Debt on Energy Crises in Pakistan: The Bound Testing Approach .....	12
3. Impact of Merger & Acquisition on Return of Pakistani Non-Financial Acquirer Firms .....	12
4. Role of Engaging the Children and Young generation through Social-Media and Indoor Games to reduce fear of COVID-19 pandemic in Pakistan .....	13
5. The Green Revolution in Pakistan: Implication for Food Security .....	13
6. Impact of Inflation on Stock Market Volatility by taking Oil Prices as Controlling Variable .....	14
7. Comparative Study of Energy Efficiency and Technological Innovation: A Case of Asean and South Asian Countries .....	15
8. Financial Sector Development affect the relationship between Remittances & Income- Inequality in South Asian Countries..	15
9. Impact of Firm Specific Factors on Profitability: Mediating Role of Leverage.....	16
10. Role of Technology integration with Reference to International Society for Technology in Education (ISTE)-Standard .....	17
11. Triple-A, GSCM Practices and Organizational Performance: A Qualitative Study .....	17
12. Correlation between Workplace Stressors and Wellbeing of Healthcare Workers in Government owned Hospitals in Calabar, Nigeria .....	18
13. Covid-19 Pandemic and Small and Medium Enterprise in Calabar .....	19
14. Insecurity in Northern Nigeria: Situational analysis of the plight and well-being of Orphans & Vulnerable Children (OVC) in Abuja IDP Camps.....	19
15. Covid-19: Crossroads for Globalization.....	20
16. Parental Lifestyle and Well-Being of Children in Calabar Metropolis, Cross River State, Nigeria .....	21
17. A comparison between Pakistani and American Sign Language .....	21
18. Magnetic Solid Phase Extraction of CD (li) from Water Samples Using Magnetic Nanoparticles Impregnated Walnut Shells Powder (Mnp <sub>s</sub> -Wsp) .....	22
19. Seroprevalence of Toxoplasma Gondii and Associated Risk Factors in Pregnant Women in District Kohat .....	22
20. Genetic Polymorphism of Echinococcus Granulosus Based on Mitochondrial Nadh Dehydrogenase Subunit 1 Gene .....	23
21. The Use of Words for Effective Written Communication: Pits and Paths of Graduate Level Students in Bahawalpur Pakistan.	24
22. Legislative Oversight in Nigeria: Issues and Challenges .....	24
23. Comparative Hematological Analysis of Columba Livia Infected with Ectoparasites in District Kohat, Pakistan .....	25
24. Antibiotic Resistance Profile of Bacteria Isolated from Neutropenic Cancer Patients in Peshawar.....	26
25. Molecular Epidimiology of Giardia Lamblia in Water Sources of District Kohat, Khyber Pakhtunkhwa, Pakistan .....	26

26. Phlebotomine Sand Flies Vectors of Leishmania Circulating in District Kohat Pakistan .....	27
27. Illicit Drugs Consumption and Productivity in the Informal Economy .....	28
28. Covid-19, Lockdown and Intimate Partner Violence in Calabar .....	28
29. Structural motivating factors towards Cloud shadow IT Usage: Strain Theory Perspective .....	29
30. Impact of Ownership Concentration on Firm's Business Risk: Moderating Role of Leverage .....	30
31. Energy Crisis in Pakistan: Socio-Economic Implications and the Way Forward.....	31
32. Factors Influencing the Development of Arabic/English Translation Skills Among Arabic Students in North-Western Nigerian Colleges of Education.....	31
33. Impact of Social Obligations on Economic Agency of Women: A Case Study of District Bahawalpur .....	32
34. Innovation-Driven Entrepreneurship and Governance in India Vis-À-Vis Covid-19 .....	33
35. Impact of Microfinance Credit and Human Capital on the Women Business Sustainable Growth in Pakistan .....	34
36. Discourse Analysis of Khushwant Singh's Train to Pakistan (A Quest to Justify the Abruptness of its Ending) .....	34
37. Women's Rights in South Punjab: A Case of Television Dramas .....	35
38. Design and Analysis of Various Pin Shapes .....	36
39. Design and Analysis of Dual Acting Opposed Piston Mr Damper.....	36
40. Simulation study of heavy-metal gallate glasses for the shielding of gamma radiation .....	36
41. Simulation study of Thallium Tellurium based oxide glasses for gamma radiation shielding .....	37
42. Pakistan's Trade performance and Potential with ASEAN Region: Recent Trends and Future Opportunities .....	38
43. Design and Analysis of a Closed Loop Geothermal Air Conditioning System .....	38
44. Pakistan-China Relations: Perceptions of the Pakistani Educated Lot .....	39
45. Contraceptive utilisation and women development in Nigeria .....	40
46. Segregation and wellbeing of third-generation migrants in Akpabuyo, Nigeria .....	40
47. Genetic Characterization of Cytochrome C Oxidase Subunit 1 Gene of Echinococcus Granuloses in Livestock of Bannu .....	41
48. Role of Technology integration with Reference to International Society for Technology in Education (ISTE)-Standard .....	42
49. Religion and Peace, Islamic history .....	42
50. Women's Owned Home-Based Enterprises: A Pathway to Women's Empowerment in Southern Punjab, Pakistan .....	43
51. Determinants of Female Labor Force Participation: A Case of PDHS 2017-18.....	44
52. Effect of salt stress on morpho-anatomy and physiology of Cyperus giganteus (Family Cyperaceae) .....	44
53. Statistical Analysis of Covid-19 using texture Analysis.....	45
54. Corona's Situation in the Ecological Context .....	45
55. Comparative studies of transport properties of few atoms separately doped graphene quantum dots by non-covalently adsorbing 4, 4'-(ethane-1, 2-diyl) dibenzenethiol molecule .....	46
56. Artificial Intelligence Application and Significance in Corporate Business and Financial Management.....	46
57. The situation of COVID-19 and Urdu Poets' humanist Behavior .....	48
58. Anylics the Role of Islamic Education and Curriculum of Pakistan to Build Peace Full Society .....	48
59. Gender equality in Islam (Research studies in a contemporary context).....	49
60. Digital documentation of Bahawalpur flora.....	50
61. Preliminary phytochemical screening and comparison of different extracts of Capparidaceae family .....	50
62. An Analysis of the rights of minorities in the context of Darul Islam and Darul Ahad (Religious, social and political rights).....	51

63. Disembodiment of Quantum Properties from Particles through Weak-Measurements .....	52
64. Dynamics of bipartite entanglement under an environment characterized by Dzyaloshinskii-Moriya interaction .....	53
65. Study of Common Intestinal Parasitic Fauna in Patients Visiting Khyber Teaching Hospital, Peshawar .....	53
66. Synthesis and Characterization of Fluorescent Epoxy-Polymers from Triphenylamine-linked Bis azomethine(s) .....	54
67. Determining Thickness Dependent Critical and Blocking Temperatures for Bi-layer Magnetic Systems using Atomistic Simulation .....	54
68. Preparation, Characterization and Simulation of Nickel Ferrite (NiFe <sub>2</sub> O <sub>4</sub> ) Nano-Particles to Investigate its Heating Efficiency for Hyperthermia Treatment of Cancer .....	55
69. Random, Biased and Unbiased Quantum Walks .....	56
70. A Simulation Study of Structural, Elastic and Optoelectronic Properties of Fluoroperovskite (Ingef <sub>3</sub> , Inpbf <sub>3</sub> , Inbaf <sub>3</sub> ) Compounds .....	56
71. A Comparative study of electronic and thermoelectric properties of bulk GaN and its Monolayer using DFT technique .....	57
72. Electrical properties of combined alkaline earth and transition metal fluorides .....	58
73. First principle calculations of structural, mechanical, electronic and optical properties of Mercury based Fluoroperovskites HgXF <sub>3</sub> (X= Bi, Sc, Y, and I) .....	58
74. Ab initio study of TI-Based heavy fluoroperovskite of TIXF <sub>3</sub> (X= Zn, Sn, and Mn) compounds .....	59
75. Synthesis, Structural, Optical properties and Applications of cerium trifluoride doped zinc oxide (CeF <sub>3</sub> /ZnO) and (NCs) .....	59
76. Phytochemical, Antioxidant and Anticancer Activities of Oxalis Acetosella and Bassia Indica .....	60
77. Metal Complexes of Tpa Based Biss Schiff Bases; Synthesis and Characterization .....	61
78. Terahertz Signal Detection via Electromagnetically Induced Transparency in Magnetized Graphene .....	61
79. The Impact of Improved Technology and Land Use Intensity on Agricultural Total Factor Productivity in Pakistan: A Multivariate Cointegration Analysis .....	62
80. Factors Affecting Total Factor Productivity of Conventional & Islamic Banks in Pakistan .....	63
81. The Impact of Exchange Rates, Oil Prices and Interest Rates on Stock Index during different political regimes in Pakistan .....	63
82. Linguistic impacts of advertising jingles on consumer's buying behavior .....	64
83. Effects of Online Education and Social Distancing During Covid-19 .....	65
84. Student's Perspective Regarding the Nature of the Silent Letters: A study conducted at the Primary Level .....	65
85. Impact of Emotional Maltreatment on a Pupil Due to Teacher Verbal Abuse: A Study Conducted at Primary Level .....	66
86. Doubts about Islam in modern times and their redressal .....	67
87. A Strategic Review of Measures against COVID-19 in Pakistan and Neighboring Countries .....	67
88. Role of Mosque in Islamic Society in Present Era .....	67
89. Exploring the relationship between Emotional Intelligence and Mantle Health of University Students .....	68
90. Prevalence of Vit-D Deficiency in Medical Students .....	69
91. Hyperproduction of urate oxidase (BEM-2) by optimizing liquid state fermentation medium .....	69
92. Effect of inhibitors on urease enzyme activity to control ammonia volatilization .....	70
93. Backache in general surgeons .....	71
94. Evaluation of physical activity among menopausal women in Nawabshah .....	71
95. Explore the association between Hopelessness and Resilience in global circumstances of Covid-19 taking over lives of people in Punjab and Sindh: A cross sectional study .....	72

96. The Share of Stigmatization in the Association of Psychological distress and Life satisfaction in mothers of Children with ASD in Faisalabad, Pakistan.....	72
97. Spirituality and Hopelessness in the Worldwide Pandemic situation .....	73
98. Impact of the Monetary Policy on the Inflation in Pakistan.....	73
99. Moderating effect of Employment rate, Literacy rate and Foreign Direct Investment on relationship between Remittance and Economic Growth in Pakistan .....	74
100. Remittances and Economic Growth in Philippines .....	74
101. Determinants of Productivity in Large and Medium Size Firms in Pakistan.....	75
102. The Interaction effect of development and non-development expenditures on the relationship of public debt and economic growth in Pakistan.....	75
103. Behaviour of Tourism Industry under the Situation of Environmental Threats and CO2 Emission:A Case study of China	76
104. Effect of Covid-19 on Education and Income in District Multan (Pakistan) .....	76
105. Agriculture Productivity and Economic Growth: A Case Study of Pakistan .....	77
106. Impact of Corruption on the Economic Growth of Pakistan .....	77
107. Solid Phase Extraction Method for the Preconcentration of Nickel Ni (II) From Aqueous Solution Using Magnetic Max Phase (Fe <sub>3</sub> O <sub>4</sub> -Ti <sub>3</sub> AlC <sub>2</sub> ) .....	78
108. Antibacterial and Synergistic Effects of Medicinal Plants Against Drug Resistant Salmonella Paratyphi A .....	78
109. Linkages between market capitalization and firms' performance in Pakistan: A Multivariate asymmetric GARCH analysis	79
110. Analyzing the Determinants of Income Inequality in Pakistan .....	80
111. The Effect of Online Math Education and Students Anxiety of Learning Mathematics in Covid-19 .....	80
112. Impact of Fiscal Policy on Domestic Credit and Investment: A Case Study of Pakistan .....	81
113. Fiscal policy, Fiscal deficit and Economic Growth in Southern Asian Economies: Does the political stability matter? .....	82
114. Consumer Vanity and Compulsive Buying Behavior .....	82
115. Does GDP Per Capita Reduce Income Inequality for South Asian Countries?.....	83
116. Green Values & Organic Food Consumption .....	84
117. Do Sentiments Crack the Dominance of Traditional Valuation Models? .....	84
118. Structural, Elastic, Mechanical, Electronic, Magnetic and Optical Properties of Half- Heusler Compounds CoFeZ (Z = P, As, Sb): a GGA+U Approximation.....	85
119. GC-MS ANALYSIS AND ANTICANCER ACTIVITY OF CALOTROPIS PROCERA .....	85
120. Energy Crisis in Pakistan: Socio-Economic Implications and the Way Forward .....	86
121. Inward foreign direct investment impact on stock market development in Pakistan .....	87
122. Detection and Phylogenetic Analysis of Cytochrome B Gene of Leishmania Tropica in Patients of Karak, Pakistan .....	87
123. The Role of Collectivism on Willingness to Participate in Collaborative Consumption: Mediating Role of Consumer Ethnocentrism .....	88
124. Impact of bank internal and macroeconomic factors on bank landing behavior in Pakistan .....	89
125. When Wellen's Syndrome Meets Brugada Phenocopy: A Case Report .....	89
126. Removal of Aqueous Acid dye using biomass from desert plant stems.....	90



## Conference Program / Report

### International Meritorious Multidisciplinary Virtual Conference (IMMCV) 16 - 19 August 2020

#### Organized by Meritorious Group of Publications

##### Conference Secretary

Dr. Syed Wahid Ali

Assistant Professor, HOD Economics, Director Research, NCBA&E Multan (Campus)  
PhD, Economics, Universiti Utara Malaysia  
conference.mgp@gmail.com

##### Focal Person of the Conference

Syed Muzaffar Hussain

Psychologist, Trainer, Motivational Speaker,  
Certified CBT Professional Psychotherapist,  
PhD Scholar, Applied Psychology, Universiti Utara Malaysia  
syedbzu@gmail.com

#### **Our Collaborations with**

1. Forum for International Relations Development (UK)
2. Department of Economics, Abdul Wali Khan University Mardan, Pakistan
3. The Govt. Sadiq College Women University, Bahawalpur
4. The Women University Multan, Pakistan
5. Peoples University of Medical and Health Sciences for women Nawabshah, Pakistan
6. Ch. Pervaiz Elahi Institute of Cardiology Multan
7. Fatima Jinnah Women University, Rawalpindi Pakistan
8. Pakhtunkhwa Economic Policy Research Institute, Abdul Wali Khan University Mardan
9. ORIC, Quaid-e-Awam University of Engineering, Science & Technology Nawabshah,
10. Research Syndicate and South Punjab Center for Research and Development

#### **Inaugural Ceremony**

#### **Pre-Conference Workshop on How to write impact factor publication**

<b>Dates</b>	<b>Program</b>	<b>Timings</b>
12-08, 2020	<b>Inauguration Ceremony</b> <b>Venue:</b> Governor House Punjab, Lahore Inaugurated by <b>His Excellency Chaudhry Mohammad Sarwar</b> <b>Governor of Punjab / Chancellor</b> , with <b>Mr. Toaha Qeshi (MBE) Member of British Empire UK</b> Chairman: Forum for International Relation Development UK	5:00 PM

14-08-2020	<b>Pakistan Independence Day</b> Cake Cutting Ceremony at <b>Meritorious Research Centre</b>	12:00 PM
16-08-2020	<b>Pre-Conference Workshop:</b> <b>How to Write an Impact factor Publication</b> <b>Guest Speakers:</b> <b>1. Dr. Saralah Devi Mariamdarani Chethiyar</b> Senior Lecturer (Pensyarah Kanan), Expertise in Correctional Studies School of Applied Psychology, Social Work and Policy, Universiti Utara Malaysia, (UUM) Sintok, Kedah, Malaysia <b>2. Dr Muhammad Azam Khan</b> Head, Department of Economics Well-renowned researcher with 150 Impact Factor Publications More than 110 Scopus indexed publications 19 h-index <b>3. Words of Thanks</b> <b>Dr. Syed Wahid Ali Shah:</b> Conference Secretary	11:00 AM          11:30 AM

## Conference Day 1, 17-08-2020

**Venue: CPE Institute of Cardiology Multan**

**Zoom Meeting Link**

<https://us02web.zoom.us/j/4033153788?pwd=RkN0SjBXeDVPUmpeWF5MXZRTFZQZ09>

Meeting ID: 403 315 3788, Passcode: 54321

	Activity	Timings
<b>Opening</b>	<b>Session Opening</b> Ribbon Cutting Ceremony <b>Prof. Dr. Rana Altaf Ahmad</b> Executive Director CPE Institute of Cardiology MBBS, DA, FCPS- Ans, M. Sc (Pain Medicine), MPA (Health)	9:30 AM
	<b>National Anthem</b>	10:00 AM
	<b>Recitation of Holy Quran &amp; Naat Shareef</b> (on audio/video)	10:05 AM
	<b>Opening Remarks by</b> Prof. Dr. Rana Altaf Ahmad	10:10 AM
	<b>Conference Introduction</b> <b>Sanie Zahra</b>	10:20 AM
	<b>Session Chair</b> <b>Prof: Dr. Gulshan Ali Memon</b> Worthy Vice Chancellor, F.R.C.S., MS, F.A.C.S Peoples University of Medical and Health Science for Women (PUMHSW) Nawabshah	10:30 AM
	<b>Keynote Speaker</b> <b>Mr. Toaha Qureshi MBE</b> Member of the Order of the British Empire Chairman: Forum for International Relations Development, UK Writer, Author, Public Speaker, Researcher and Analyst	10:40 AM

<b>Session 1</b>	<b>Session Concluding Note</b> <b>Dr Aamir Furqan</b> (Assistant Professor) FCPS Anaesthesia, FCPS Cardiac Anaesthesia, MCPS- HPE Medical Educationist, Certified Medical Editor CME Certified online and Distance Education CODE. Managing Editor Multan Journal of Cardiovascular Diseases. MD MedTeach.com, (Online Anaesthesia Classroom)	1:00 PM
<b>Session 2</b>	<b>Session Concluding Note</b> <b>Dr Saba Saeed</b> Assistant Professor, Department of Physics PhD from Amsterdam, The Netherlands Post doctorate from Sungkyunkwan University South Africa Korea The Government Sadiq College Women University Bahawalpur.	4:30 PM
<b>Closing</b>	<b>Overall Conclusion</b> <b>Prof. Dr. Rana Altaf Ahmad</b>	4:40 PM
	<b>Closing Remarks</b> Dr. Muhammad Saleh Khaschali Honourable Pro Vice Chancellor, Peoples University of Medical and Health Science for Women (PUMHSW) Nawabshah	
	<b>Words of Thanks</b> <b>Dr. Ahmad Tisman Pasha</b> Conference Coordinator Lecturer, Institute of Banking Finance. Bahauddin Zakariya University, Multan Pakistan PhD Universiti Utara Malaysia	5:00 PM

## Conference Day 2, 18-08-2020

**Venue: Meritorious Research Centre Multan**

**Zoom Meeting Link**

<https://us02web.zoom.us/j/4033153788?pwd=RkN0SjBxeDVPUmpeWF5MXZRTFZQZz09>

Meeting ID: 403 315 3788, Passcode: 54321

	<b>Activity</b>	<b>Timings</b>
<b>Opening</b>	<b>Session Opening</b> Ribbon Cutting Ceremony <b>Mr. Toaha Qureshi MBE</b> Member of the Order of the British Empire Chairman: Forum for International Relations Development, UK	9:30 AM
	<b>National Anthem</b>	9:40 AM
	<b>Recitation of Holy Quran &amp; Naat Shareef</b> (on audio/video)	9:50 AM
	<b>Opening Remarks</b> Mr. Toaha Qureshi MBE	10:00 AM
	<b>Conference Introduction</b> <b>Mehak Ejaz</b>	10:15 AM
	<b>Session Chair</b>	10:25 AM

	<b>Dr. Saima Hamid</b> Worthy Vice Chancellor, M.B.B.S. & PhD. in Public Health Fatima Jinnah Women University, Rawalpindi Pakistan	
	<b>Keynote Speaker</b> <b>Mr. Toaha Qureshi MBE</b> Member of the Order of the British Empire Chairman: Forum for International Relations Development, UK Writer, Author, Public Speaker, Researcher and Analyst	10:40 AM
<b>Session 1</b>	<b>Concluding Note</b> <b>Prof. Khalid Saeed</b> Professor of Psychology, Educationalist, Head of Psychology Department NCBA&E, SUB-CAMPUS, Multan, Pakistan	4:30 PM
<b>Closing</b>	<b>Closing Remarks</b> Dr. Sarwat Sultan Chairperson, Department of Applied Psychology Bahauddin Zakariya University, Multan	5:00 PM
	<b>Words of Thanks</b> <b>Syed Muzaffar Hussain:</b> Conference Focal Person	5:30 PM

## Conference Day 3, 19-08-2020

**Venue: The Women University Multan**

**Zoom Meeting Link**

<https://us02web.zoom.us/j/4033153788?pwd=RkN0SjBxeDVPUmpeWF5MXZRTFZQZz09>

Meeting ID: 403 315 3788, Passcode: 54321

	<b>Activity</b>	<b>Timings</b>
<b>Opening</b>	<b>Session Opening</b> Ribbon Cutting Ceremony <b>Prof. Dr. Uzma Qureshi</b> Worthy Vice Chancellor, PhD. University of Birmingham, Birmingham, West Midlands Post- Doctorate, From University of Cambridge, England The Women University Multan, Pakistan	9:30 AM
	<b>National Anthem</b>	9:40 AM
	<b>Recitation of Holy Quran &amp; Naat Shareef</b> (on audio/video)	9:50 AM
	<b>Opening Remarks</b> <b>Prof. Dr. Uzma Qureshi</b> Worthy Vice Chancellor, PhD. University of Birmingham, Birmingham, West Midlands Post- Doctorate, From University of Cambridge, England The Women University Multan, Pakistan	10:00 AM
	<b>Conference Introduction</b> <b>Mehak Ejaz &amp; Sanie Zahra</b>	10:20 AM
	<b>Session Chair</b>	10:30 AM

	<p><b>Prof. Khalid Saeed</b>                  Professor of Psychology                  Educationalist, Head of Psychology Department,                  NCBA&amp;E, SUB-CAMPUS, Multan, Pakistan</p>	
	<p><b>Keynote Speakers</b>  <b>Mr. Toaha Qureshi MBE</b>                  Member of the Order of the British Empire                  Chairman: Forum for International Relations Development, UK                  Writer, Author, Public Speaker, Researcher and Analyst  <b>Dr. Saralah Devi Mariamdara Chethiyar</b>                  Expert in correctional studies (Psychology)                  Senior Lecturer/Assist. Professor                  Department of Psychology &amp; Social Work, School of Social                  Development, College of Arts and Sciences.                  Universiti Utara Malaysia Sintok, Kedah Malaysia</p>	10:45 AM
<b>Session</b>	<p><b>Session Concluding Note</b>  <b>Prof. Khalid Saeed</b>                  Professor of Psychology, Educationist, Head of Psychology                  Department NCBA&amp;E, SUB-CAMPUS, Multan, Pakistan</p>	4:00 PM
<b>Closing</b>	<p><b>Session Closing Remarks</b>  <b>Prof. Dr. Uzma Qureshi</b>                  Worthy Vice Chancellor,                  PhD. University of Birmingham, Birmingham, West Midlands                  Post-Doctorate, From University of Cambridge, England                  The Women University Multan, Pakistan</p>	4:20 PM
	<p><b>Words of Thanks</b>  <b>Syed Muzaffar Hussain:</b> Conference Focal Person</p>	4:30PM

## Virtual Round the Table Discussion, 19-08-2020

### CONSTRUCTING POST CORONA PARADIGM: CHALLENGES AND SOLUTIONS

**Venue: The Women University Multan**

**Zoom Meeting Link**

<https://us02web.zoom.us/j/4033153788?pwd=RkN0SjBXeDVPUmpeWF5MXZRTFZQZz09>

Meeting ID: 403 315 3788, Passcode: 54321

No	Experts in Discussion	Starting Time 5:00 PM
1	<p><b>Prof. Dr. Uzma Qureshi</b>                      Worthy Vice Chancellor,                      PhD. University of Birmingham, Birmingham, West Midlands                      Post-Doctorate, From University of Cambridge, England                      The Women University Multan, Pakistan</p>	
2	<p><b>Dr. Saima Hamid</b>                      Worthy Vice Chancellor,                      M.B.B.S. &amp; PhD. in Public Health</p>	

	Fatima Jinnah Women University, Rawalpindi	
3	<b>Prof. Dr. Gulshan Ali Memon</b> Vice Chancellor, F.R.C.S., MS, F.A.C.S Peoples University of Medical and Health Sciences Nawabshah, Pakistan	
4	<b>Prof. Dr. Muhammad Saleh Khaskheli</b> Pro-Vice Chancellor M.C.P.S., F.C.P.S Anesthesiology, M.Sc.-Pain Medicine Peoples University of Medical and Health Sciences Nawabshah, Pakistan	
5	<b>Prof. Dr. Syed Khawaja Alqma</b> Dean of Social Sciences (MUL), Former Pakistan's Ambassadors to Yemen Former Vice Chancellor, Bahauddin Zakariya University Minhaj University Lahore, Pakistan	
6	<b>Prof. Khalid Saeed</b> Professor of Psychology, Educationalist, Head of Psychology Department NCBA&E, SUB-CAMPUS, Multan, Pakistan	
7	<b>Dr. Sarwat Sultan</b> Chairperson/Associate Professor, Department of Applied Psychology Bahauddin Zakariya University Multan, Pakistan	
8	<b>Dr. Saralah Devi Mariamdarani</b> Senior Lecturer/Assist. Professor Department of Psychology & Social Work, School of Social Development, College of Arts and Sciences. Universiti Utara Malaysia Sintok, Malaysia	
9	<b>Dr. Muhammad Azam Khan</b> Chairman/Associate Prof, Department of Economics, (AWKU) Mardan. Adjunct visiting Professor, College of Business, Universiti Utara Malaysia. Abdul Wali Khan University Mardan, KP-Pakistan.	
10	<b>Dr. Yusuf Suleiman</b> Educational Management Consultant Department of Educational Management & Counselling Al-hikmah University, Kwara State, Nigeria.	
11	<b>Sanan Waheed Khan</b> PhD Scholar, Mass Communication, Universiti Putra Malaysia.	
12	<b>Mr. Takad Ahmed Chowdhury</b> Associate Professor & former Head, Department of English University of Asia Pacific, Dhaka, Bangladesh.	
13	<b>Mr. Toaha Qureshi MBE</b> Member of the Order of the British Empire Chairman: FIRD Forum for International Relations Development, UK	

## **ABSTRACTS**

### **1. The Impact of Self-Efficacy on Work Engagement with Mediating Effect of Organizational Trust**

**Ather Ummad Khan**

Department of Management Sciences, National College of Business Administration & Economics, Multan Campus

#### **ABSTRACT**

The purpose of this paper is to focus on the implications of the impact of the self-efficacy on work engagement in the employees working in the organization especially on the educationists (teachers and professors) working in the educational institutions of Southern Punjab, Pakistan. The authors discuss the interaction of these variables with the mediating effect of the organizational trust which contributed to enhance the work engagement of the employees while they are at work. The paper highlights the importance of the self-efficacy while employees exert their efforts to achieve their objectives enthusiastically due to the trust they have in the organizations. The paper focuses on the survey with a questionnaire containing 30 questions with 5-point Likert Scale ranging from 1.0 (Strongly Disagree) to 5.0 (Strongly Agree) inculcating all three variables (self-efficacy, organizational trust and work engagement). The sample population was obtained from the Southern Punjab including the teachers and professors working in the public as well as private sector institutions. Quantitative data was analyzed through Pearson Correlation and Multiple Linear Regression. The authors discuss the importance of the self-efficacy in the employees in order to enhance the work engagement within them through building the organizational trust. This study is first of its kind that discusses the relationship between self-efficacy as well as the work engagement with a mediating role of organizational trust. The theoretical contribution of the paper is with the Self-Efficacy theory by Albert Bandura as the knowledge development and the practical contribution is three-folded: a) this paper may provide assistance to the managers while taking the informed decisions regarding the employees' work engagement; b) employees may be benefited with this paper while they are engaged with their work activities, the positive outcomes will be achieved in their performance; c) the stakeholders may be highly involved in this study through organizational trust and self-efficacy to improve the work engagement.

**Keywords:** Self-Efficacy, Work Engagement, Organizational Trust, Employees' Motivation, Organizational Performance.

## **2. The Impact of Corruption and Circular Debt on Energy Crises in Pakistan: The Bound Testing Approach**

**Seema Arif<sup>1</sup>, Dr. Alam Khan<sup>1</sup>, Dr. Dilawar Khan<sup>1</sup>**

<sup>1</sup>Department of Economics, Kohat University of Science and Technology, Kohat

### **ABSTRACT**

Electricity crisis also declines the productivity, increasing rate of crime and daily wage of workers. Shortage creates a lot of social evils as well as affecting the standard of life. The electricity demand is affected by several issues such as over population, prices of electric unit, economic progress, flows of urban resident and weather. So, the crisis that led to electricity shortage which is caused by theft, excessive use in domestic and industrial sector which ultimately affect the loss of power lines, mismanagement and political controversy in power projects. The effect of electricity demand and supply gap adversely affects the Pakistan's economy. The increasing population will need more electricity as well as more goods. So, to fulfill the demand of increasing population, this may not be acquired due to inadequate power supply. The impact of corruption and circular debt on energy crisis in case of Pakistan was not focused earlier. To the best of my knowledge, no one examined the effect of circular debt, population, industrial growth as well as also focuses on the distribution and transmission losses in electricity sector. This study will use ARDL bounds testing approach, as a co-integration in order to test the presence of both long run and short run relationship between the variables. The data used in this study will be taken from the database of World Development Bank (WDI). So, this study helps policy makers to address the impact of corruption and circular debt on energy sector to create crisis in Pakistan.

**Keywords:** Corruption, Circular Debt, Energy Crisis, ARDL Bounds testing.

## **3. Impact of Merger & Acquisition on Return of Pakistani Non-Financial Acquirer Firms**

**Faiza Fazal**

University of Sargodha, Sargodha

### **ABSTRACT**

This study aims to figure out Return changes due to merger and acquisition activity with respect to types of merger & method of payment in the nonfinancial sector of Pakistani firms. In order to seek empirical analysis, merger and acquisition involved firms has been utilized which were listed on Pakistan stock exchange (PSX) for 2001 to 2015. Furthermore, event study method has used in this study, to find out the analysis results about returns. Results conclude that M&A activity mainly improves the stock return of acquirer firms. This study is based on the Pakistani non-financial firms so these results will be applicable to only those firms which are or going to



be involved in M&A activity of non-financial sector in Pakistan or developing countries like Pakistan.

**Keywords:** Return, Merger & Acquisition, Event study, Method of payment, Types of merger

#### **4. Role of Engaging the Children and Young generation through Social-Media and Indoor Games to reduce fear of COVID-19 pandemic in Pakistan**

**Kainat Amjad**

##### **ABSTRACT**

Novel corona virus infections overlapped the whole world and compel the people to live in isolation. Due to the isolated situation, decline in social contact has been observed and no one knows the time limit of this isolation situation; uncertainty. This uncertain time period of isolation exacerbates the fear factor in the people. To cope up this fear various strategies has been jotted down in this review article. This article explains reduction of fear by social-media and indoor games.

**Keywords:** COVID-19, Social media, Young generation, Pandemic in Pakistan, children, fear reduction, Indoor games.

#### **5. The Green Revolution in Pakistan: Implication for Food Security**

**Muhammad Nouman<sup>1</sup>, Dilawar Khan<sup>1</sup>, Ihtisham ul Haq<sup>1</sup>**

<sup>1</sup>Department of Economics, Kohat University of Science and Technology, Kohat

##### **ABSTRACT**

Throughout the globe, food security is considered as the most critical phenomenon while making the policy worldwide. Everywhere throughout the world, this considered as the basic need for every individual. Every economy has been considering food security as the most crucial within their regions. For this purpose, an attempt has been taken by the researcher in case of Pakistan. The rationale behind this study is to explore the implications of green revolution regarding food security in case of Pakistan. Time series data has been involved in the study ranging from 1972-2017. Various modern econometric techniques were employed to achieve the desired objectives. Initially, in an attempt to identify the problem of unit root, ADF as well as PP tests were applied in the study. Then for examining the short run and long run effects in the model, ARDL F-bound test approach was applied. Additionally, in an attempt to analyze the parameters' reliability as well as stability within the study, multiple diagnostic tests have been applied. The findings of the study showed that green revolution influences the food security positively and significantly in both short and long runs. The outcomes suggest the excessive use of modern and scientific

production techniques in agriculture sector of Pakistan in order to enhance food security. Moreover, the findings of the research are effective guideline for policymakers in order to address the issue of food security in Pakistan and in the entire world.

**Keywords:** Food security, Green revolution, ARDL F-bound test approach, Pakistan.

## **6. Impact of Inflation on Stock Market Volatility by taking Oil Prices as Controlling Variable**

**Javeria Shahzad**

### **ABSTRACT**

The stock market is a major part of the economy as the rising stock market is the sign of a developing economy of the country. The continuous or steady increase in the price level of products and services is termed as inflation. It causes depreciation of a country's currency. And oil is a major energy source. As Pakistan is oil-importing country variations in oil prices affect all components related to the economy. Rising in the prices of fuel can become the main reason for inflation in the country. So, this research examined the impact of inflation on stock market volatility by taking oil prices as a controlling variable.

In this empirical research paper, we took three variables dependent, independent, and control variables. We use the KSE100 index to represent stock market volatility as the dependent variable. Inflation as an independent variable and oil prices as a controlling variable. There are two steps for this investigation: firstly, the influence of inflation on volatility in stock market has been examined. Secondly, oil prices have been used as a controlled variable in order to examine the influence of inflation on volatility of stock market. The type of data in this research is secondary. The data is collected monthly from January 2009 to December 2018. This research applied the correlation and regression models using ordinary least square method separately for both models.

Our findings suggest that inflation and oil prices are negatively related to the KSE100 index and there exists a positive relationship between oil prices and inflation. Our probability value of both models shows that our models are significant to explain this relationship. In model 1 the coefficient value shows that increase in 1 unit of inflation decrease the stock index by 0.868357 units. The value of R squared shows that inflation explains 70.89% of the dependent variable. In the 2nd model when we see the impact of oil prices as a control variable impact of inflation on the KSE100 index increases from  $-0.8683$  to  $-0.948$ . Value of R squared shows that the cumulative effect of both factors is 75% on the KSE100 index.

This study is unique in terms that the controlling effect of oil prices on KSE 100index is examined. We find that the controlling effect of oil prices on the KSE100 index exists but the impact is negligible. By adding oil prices as the controlling variable relationship remained negative but the impact has increased.

**Keywords:** oil prices, KSE100 index, Inflation, stock market volatility

## **7. Comparative Study of Energy Efficiency and Technological Innovation: A Case of Asean and South Asian Countries**

**Azeem Abbas<sup>1</sup>, Dr. Dilawar Khan<sup>1</sup>, Dr. Ihtesham ul Haq<sup>1</sup>**

<sup>1</sup>Department of Economics, Kohat University of Science and Technology

### **ABSTRACT**

The aim of this research employed a trans log stochastic frontier model to estimate energy efficiency and then used a panel autoregressive distributive lag (ARDL) model to explore a link of technological innovation with energy efficiency for South Asia and ASEAN countries using balanced panel data for the period 2000 to 2014. Results of the stochastic frontier model revealed that the average energy efficiency of ASEAN countries is 92% ranging from 81% to 99% and average energy efficiency for South Asia is 88% ranging from 74% to 98%. Results of the study explored that Malaysia is the highest energy-efficient country in both the region with energy efficiency of 99% followed by India with 98% of efficiency score. Srilanka is the lowest energy efficient country with energy efficiency of 74% in both regions. Results of the panel ARDL model depicted the role of technological innovation to enhance the energy efficiency in the long-run. Further, the panel co-integration tests suggested that this long-run association of technological innovations and energy efficiency is stable over time. The results explored that for the sustainability of energy efficiency in both South Asia and ASEAN regions, the acquisition of technology is important. Results further shows that energy efficiency develops the economic conditions of both regions. In addition, efficient energy utilization is beneficial for developing the economic conditions sustainably in both the regions.

**Keywords:** Energy efficiency; Technological innovations; SFA approach; ARDL model; Panel data; South Asia and ASEAN countries

## **8. Financial Sector Development affect the relationship between Remittances and Income- Inequality in South Asian Countries**

**Nayab Karim<sup>1</sup>, Dr. Muhammad Azam Khan<sup>1</sup>, Muhammad Tariq<sup>1</sup>**

<sup>1</sup>Department of Economics, Abdul Wali Khan University Mardan, Pakistan

### **ABSTRACT**

The purpose of the study takes a new dimension in exploring the moderating role of financial sector development in remittances- income inequality nexus. It contributes to the literature by creating an overall financial sector development index covering the size, depth, efficiency, and stability of the financial institutions. The estimated technique used is the fixed-effects for the

time-period 2006-2018. The empirical results demonstrate that the financial sector development mitigates the income inequality effects in South Asian remittance recipient economies. The interaction term used in the analysis has a negative significant impact, showed that as the financial sector gets developed it mitigate the remittances income inequality relationship. In other words, remittances reduced income inequality in the presence of a well-functioning financial sector in South Asian remittance-recipient economies.

**Keywords:** Remittances, Income Inequality, Financial sector.

## **9. Impact of Firm Specific Factors on Profitability: Mediating Role of Leverage**

**Wajid Khan**

Air University Multan Campus

### **ABSTRACT**

In order to finance their working capital requirement, firm obtains capital either through taking debts or through the induction of equity. In the simplest word's capital structure is a combination of debt and equity and is most commonly refers as ratio of a Debt to Equity of a firm. However, in what percentage, the firm will obtain debts and induct equity and any particular combination of debt and equity used by a firm to finance its working capital requirement or to support future growth depend upon mainly two type of factors. These factors are known as Firm & Country specific factors. These factors help shaping capital structure of the firm that ultimately affect the leverage of a firm. Since leverage is simply a technique that help in increasing or decreasing of the gains and losses. The amount of leverage depends upon the mix of short- or long-term debt and equity participation of a firm in its capital structure. These factors affect the value of a firm by affecting return and risk. Since leverage helps us in explaining the particular factors regarding company as well as country and their relationship with the profitability of a firm, therefore it acts as a mediator in a relationship between the particular factors regarding firm and country and firm outcomes. In this study we investigate the relationship of firm specific factors with the firm performance with the mediation effect of leverage on the non-financials' firms of Pakistan. The population of our study was the all non-financials listed firms on Karachi Stock Exchange. Whereas our sample was of active 299 non-financials firms listed on PSX-100 Index. For the analysis of data, we will use component-based E Views 7 Statistical tool and for the regression analysis we applied fixed effects model. In this study we take Performance of a firm as dependent variable and measured the performance (ROA) of a firm through the proxies of Return on asset (ROA). Whereas independent variables were taken as i.e. Firm Specific Factors; Asset Structure (AST), Growth Opportunity (G\_O), Firm Size (F\_S), Liquidity (LQTY), Non-debt Tax Shield (NDTS), Earning Volatility (B\_R). Role of Leverage was taken as mediator. Result of our study showed that ROA has a significant positive relationship with Growth Opportunity (G\_O),

Liquidity (LQTY) and Non-Debt Tax Shield (NDTS). Whereas Leverage plays a mediating role in a relationship between Liquidity (LQTY) & ROA and relationship Firm Size (F-S) and ROA.

**Keywords:** Return on Assets, Growth Opportunity (G\_O), Liquidity (LQTY) and Non-Debt Tax Shield (NDTS), Leverage (LVRGE).

## **10. Role of Technology integration with Reference to International Society for Technology in Education (ISTE)-Standard**

**Rabia Aslam<sup>1</sup>, Najmonnisa Khan<sup>1</sup>, Ushaque Ahmed<sup>1</sup>**

<sup>1</sup>Department of Education, Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology, Karachi Pakistan

### **ABSTRACT**

The present research addresses the impact of technology integration on TPK according to the International Society for Technology in Education (ISTE-2008) Standards for Teachers in public and private universities of Engineering & Technology in Sindh, Pakistan. 260 teachers of public and private universities of Engineering & technology were selected on the basis of simple random sampling technique. Data was collected through questionnaire distribution. Strong significant correlation was found between ICT integration and teachers' professional knowledge, teachers' ability to engage in professional development, and teachers' ability to promote digital citizenship and responsibilities in students. It is recommended that teachers should plan their lesson according to ISTE-2008 standards which will not only boost their professional growth but will also promote digital citizenship in students.

**Keywords:** Digital citizenship, Teachers' Professional Knowledge, Technology Integration, ISTE-Standards, Professional Development.

## **11. Triple-A, GSCM Practices and Organizational Performance: A Qualitative Study**

**Adeel Akhtar<sup>1</sup>, Kullapa Soratana<sup>2</sup>**

<sup>1</sup>PhD Candidate, Faculty of Logistics and Digital Supply Chain, Naresuan University, Thailand

<sup>2</sup>Assistant Professor, Faculty of Logistics and Digital Supply Chain, Naresuan University, Thailand

### **ABSTRACT**

Over the past few years (since 2019), organizations have shown high level of concerns regarding the environmental effect of their industrial operations. Literature suggests that further research on Triple-A (agility, adaptability, and alignment) capabilities, activities regarding green supply chain management (GSCM) and the outcomes of organization are needed, especially in the

context of developing countries. A qualitative research methodology was followed. Literature was reviewed and semi-structured in-depth interviews were conducted.

The findings of literature review and in-depth interviews revealed that Triple-A capabilities are vital for the success of an organization. The management of the pesticide companies of Pakistan have effectively responded to the threat of COVID-19 with the help of Triple-A capabilities. Study results indicated that Triple-A capabilities have a positive effect on all domains of organizational performance (Operational, Economic, Environmental and Social). It was also confirmed that Triple-A capabilities are necessary for the successful implementation of GSCM Practices. GSCM practices also have a positive effect on all domains of organizational performance. This is the first study to explore the relationship of Triple-A, GSCM Practices and the outcomes of organization in the context of developing countries by focusing the pesticide sector. It is concluded that there exists a positive relationship between Triple-A capabilities and the organizational outcomes. Triple-A capabilities also have a positive effect on the GSCM Practices. Moreover, GSCM Practices influence positively on the Organizational Performance.

**Keywords:** Triple-A, Agility, Adaptability, Alignment, Green Supply Chain Management (GSCM) Practices, Environmental Performance, Economic Performance, Operational Performance, Social Performance, Pesticide Firms, COVID-19, Pakistan

## **12. Correlation between Workplace Stressors and Wellbeing of Healthcare Workers in Government owned Hospitals in Calabar, Nigeria**

**Agba, Ogaboh<sup>1</sup>, Ironbar, Archibong E<sup>1</sup>, Ebong, Edem A<sup>1</sup>, Bekomson, Emmanuel M<sup>1</sup>**

<sup>1</sup>University of Calabar, Nigeria

### **ABSTRACT**

The study examines the correlation between workplace stressors such as working overtime, workload and wellbeing of Healthcare Workers in Government owned Hospitals in Calabar, Nigeria. using the descriptive quantitative cross-sectional design, data were collected from 650 participants randomly selected from a population of 3774 working in two tertiary government-owned hospitals in Calabar, Cross River State, Nigeria. the sample size was determined using the Survey Monkey sample size determinant calculator. Data was collected using a self-developed structured questionnaire. Descriptive statistics as well as Pearson Product Moment Correlation were used in order to analyze the collected data. Result revealed that working overtime significant relates to the wellbeing of health workers (calculated R-value of 0.38 < critical R-value of 0.112). Findings also revealed a significant correlation between workload and the wellbeing of health workers (calculated R-value of 0.29 < critical R-value of 0.113). Base on this finding, there is a need for educational programs and workshops that is aimed at promoting a healthy work environment as well as healthy lifestyle and behavior among health workers.

**Keywords:** workplace stressors, working overtime, workload, wellbeing, healthcare workers

### **13. Covid-19 Pandemic and Small and Medium Enterprise in Calabar**

**Iloeje, Ijeoma A<sup>1</sup>, Ibiam, Azu A<sup>1</sup>, Ojong-Ejoh, Mary U<sup>1</sup>, Dike, Emmanuella<sup>1</sup>**

<sup>1</sup>Department of Sociology, University of Calabar, Nigeria

#### **ABSTRACT**

The impact of the covid-19 pandemic on low and medium scale enterprise in Calabar, Cross River State, Nigeria has been examined in this research. The cross-sectional survey method was used in collecting data from 474 SMEs in Calabar, Cross River State using the stratified and purposive sampling method. The instrument of data collection was a self-developed semi-structured questionnaire. Data collected from the field was coded, analyzed using descriptive statistics such as tables and graphs and correlation analysis at 0.05 significance level. Out of the 474-instrument distributed only 422 was returned and used for analysis. From the analysis, the result revealed that 88.6 per cent of the SMEs reported being negatively affected by the pandemic, 71.3 per cent reported laying off employees during this period. Also result from the correlation analysis exhibited a significant relationship between covid-19 pandemic and the operations of SMEs in Calabar, Cross River State, Nigeria. Based on these findings, there is a need for policy adjustment toward SMEs operations in Calabar.

**Keyword:** Covid-19 pandemic, SMEs, Employment, Measures, Calabar

### **14. Insecurity in Northern Nigeria: Situational analysis of the plight and well-being of Orphans & Vulnerable Children (OVC) in Abuja IDP Camps**

**Emmanuel Eshiotse<sup>1</sup>, John Thompson Okpa<sup>1</sup>, Inang Ekpenyong Ekpenyong<sup>1</sup>,  
Nwagboso, Nnenna Salome<sup>1</sup>**

<sup>1</sup>Department of Sociology, University of Calabar, Cross River State, Nigeria

#### **ABSTRACT**

Using FGD, IDI, KII, this study investigates the plight and well-being of Orphans and Vulnerable Children (OVC) in Abuja Internally Displaced Persons (IDPs) camps. The study was exploratory using qualitative design. Eight In-depth Interviews and Key Informant Interview for camp officials and OVC children respectively, and eight Focus Group Discussions sessions were conducted. The study applied purposive sampling technique in the selection of four camp officials in Area-One, Kuje, Lugbe and New Kunchingoro and eighty-six respondents across camps. Data were analysed using ethnographic summaries and content analysis. The results highlight the wellbeing of OVC in the camp in respect to housing, feeding, clothing, schooling and healthcare is deplorable, appalling, and below standard. The coping strategies include mandatory support from governmental agencies, community supports such as philanthropic gestures from civil societies, faith and non-faith-based organisations; and wealthy individuals. The study concluded that the living conditions of OVC in Abuja camps is harsh, cruel, rough,

brutish, and dehumanizing. The study suggests that there should be established pattern of placing OVC in IDPs camps by government and other stakeholders to tackle the extra displacement experiences of neglect, abandonment, and the security risks OVC go through and poses to the society in general.

**Keywords:** Well-being, orphans and vulnerable children, internally displaced persons, insecurity, Northern, plight.

## 15. Covid-19: Crossroads for Globalization

**Mariam Javed Asghar<sup>1</sup>, Muhammad Jahanzeb Akmal<sup>2</sup>, Ansar Abbas<sup>3</sup>**

<sup>1</sup>M. Phil Scholar, Quaid-E- Azam University, Islamabad

<sup>2</sup>Assistant Professor, Department of International Relations, BZU Multan

<sup>3</sup>Lecturer of Gender Studies, Department of Political Science, IUB Bahawalpur

### ABSTRACT

The process of global integration has hard hit in recent years with the recent rise of hyper nationalism. There has been an elaborative debate going on whether or not globalization will remain intact in years to come. Even though, the determinant falls out in either case is yet to be classified, still the events like out-break of Covid-19 has posed serious structural questions on the issues like globalization, internationalism, and nationalism. For both the academicians and the practitioners of global politics; understanding the genesis of Covid-19 is as necessary as is its underlying political impact to foresee and to prompt the suggestable political adjustments that states have to make for sustainable socio-economic well-being. Therefore, this study will expound into the details of the nature of political mayhem that has been resultant. As it remains quite evident, that initial response of globally integrated countries was more marked on blame game and score settling, instead of *coordination* and *cooperation* to effectively mitigate the immediate impacts. So far, this will remain a central concern of this research that how and why certain countries have shaped and implemented effective policy to contain and curb spread of Covid-19, and why the other countries have failed to do so. In this regard the comparative study of countries like, Italy, UK, US, Brazil, and India will be made with that of China, Singapore, Canada, Germany, and North Korea. The centrist tendency of the counties in effective managerial tier pose as serious questions to the future of globalization as is the democratic legislative countries who failed to make the mark due to their political indecisiveness. So far, this study will explore the underlying cause to the leadership level, as well as state and societal level, in an order to make prognosis of the said pandemic. The theoretical construct will look into the points of *neo-liberalism*, in an order to evaluate the prospects and limitations of states to intervene and to regulate the political landscape of post Covid-19's world. In the end, this study will encapsulate the lessons that could be learnt and adjustments that are deemed to be made for making an integrated stride on behalf of states in years to come forth.



**Keywords:** Globalization, Internationalism, Nationalism, Democratic Legislative, Centrist Political Manifestation

## **16. Parental Lifestyle and Well-Being of Children in Calabar Metropolis, Cross River State, Nigeria**

**John Thompson Okpa<sup>1</sup>, Peter, Eno-Obong Okon<sup>1</sup>, Akomaye Sylvester<sup>1</sup>, Lekam Blessing Ubi<sup>1</sup>**  
<sup>1</sup>University of Calabar, Cross River State, Nigeria

### **ABSTRACT**

The purpose of the research is to investigate the association within parental lifestyle and well-being of children in Calabar Metropolis, Cross River State, Nigeria. Specifically, the study examines the association between gambling, abuse of illicit drugs, sexual promiscuity of parents and wellbeing of children in Calabar Metropolis, Cross River State, Nigeria. A cross-sectional survey research design was used. The multi-stage sampling technique is adopted. Research instrument was administered to three hundred and eighty-four (384) respondents selected from Calabar Metropolis. Elucidated data were statistically analyzed using Pearson Product Moment Correlation Analysis (PPMC). 0.05 level of significance was used in order to test the hypotheses. The research findings revealed that gambling (parental lifestyle), abuse of illicit drugs, sexual promiscuity of parents significantly relates with well-being of children in Calabar Metropolis, Cross River state, Nigeria. Based on the findings, the study recommends that Civil societies and Non-governmental Organizations should create and sponsor community-based family support outreaches and parent education programmers that can be provided to the individual parents along with the skills, knowledge and social support to do their best while upbringing their children.

**Keywords:** Abuse of illicit drugs; Children, Gambling, Parental lifestyle, Sexual promiscuity and well-being.

## **17. A comparison between Pakistani and American Sign Language**

**Anam Noreen**

### **ABSTRACT**

This thesis is a comparative study of Pakistan sign language and American sign language in order to detect the problems of PSL. This research work is an examination of linguistic structure of sign language of Pakistan and America. It contains a sketch grammar of PSL and a little bit description of regional varieties in PSL. Basic handshapes are discussed. Contrary to American sign language, PSL does not contain classifier hand shapes. sign families in PSL and compounding is also discussed in relation to sign families. Pakistan sign language has influences of Urdu and other regional languages while ASL is complete in itself and is totally different from

any other spoken language. Word classes and morphology in Pakistan sign language is also discussed with stress on the realization of tense and aspects of compounding. Unlike American sign language, PSL does not contain distinct word classes. Syntax, word order and the use of space in grammar of both sign languages is described. Basic detected problems are mentioned and some possible solutions are also given in this research work. The comparison shows that PSL lacks many important features of language and yet not fully developed as other sign languages of the world. Already existing data has been analysed for this purpose.

### **18. Magnetic Solid Phase Extraction of Cd (Ii) from Water Samples Using Magnetic Nanoparticles Impregnated Walnut Shells Powder (Mnp<sub>s</sub>-Wsp)**

**Shaista Naseer<sup>1</sup>, Mansoor Khan<sup>1</sup>, Muslim khan<sup>1</sup>**

<sup>1</sup>Department of Chemistry, Kohat University of Science and Technology, Kohat, Pakistan

#### **ABSTRACT**

The research illustrates the synthesis of magnetic nanoparticle (MNPs), impregnated walnut shell powder (MNPs-WSP) were carried out using co-precipitation method and used for the solid phase extraction of Cd (II) from environmental water samples. MNPs and MNPs-WSP were characterized by using FTIR for functional group, SEM for surface morphology, EDX for elemental analysis, XRD for crystallinity and SAA for surface area, pore volume and pore size. For quantitative percent recovery various analytical parameter like solution pH, adsorbent dose, volume of sample, vertex time and temperature effect were optimized. Analytical parameter like the limit of detection (LOD), limit of quantification (LOQ) and enhancement factor (EF) are also calculated. The kinetic data shows that the adsorption of Cd (II) on MNPs and MNPs-WSP follows pseudo second order kinetics. Values of  $\Delta H^\circ$ ,  $\Delta S^\circ$  and  $\Delta G^\circ$  show that these adsorption processes are exothermic and feasible in nature. For equilibrium studies different isotherms like Langmuir, Freundlich, Temkin and D-R adsorption isotherms were applied. The method was successfully applied to environmental water samples like Tap water, Underground water, Dam water and wastewater with satisfied recovery results.

**Keywords:** Solid phase extraction, Magnetic nanoparticle, Co-precipitation, Preconcentration

### **19. Seroprevalence of Toxoplasma Gondii and Associated Risk Factors in Pregnant Women in District Kohat**

**Saira Shafi<sup>1</sup>, Taj Ali Khan<sup>1</sup>**

<sup>1</sup>Department of Microbiology, Kohat University of Science & Technology Kohat, Pakistan

#### **ABSTRACT**

An intracellular, obligate and parasitic protozoon is termed as toxoplasma gondii. It is the main source of common zoonotic disease toxoplasmosis which is capable of infecting virtually all

warm-blooded animals. Cats serve as main hosts for *Toxoplasma gondii* while birds and mammals including humans act as intermediate hosts. Congenital infection is one of the most important sequels of toxoplasmosis in pregnant women. To investigate the seroprevalence of *Toxoplasma gondii* in females which are pregnant in Kohat and to determine the risk adjoint with the abortion and its attending the Liaqat Memorial Hospital and Family Health Hospital Kohat. In order to find out the prevalence of toxoplasmosis within pregnant females, a cross-sectional research design has been used across the hospitals. 60 serum samples were collected from September 2019 to February 2020. The serum samples were examined for the anti-*Toxoplasma gondii* antibodies use ELISA kit. The overall seroprevalence of *Toxoplasma gondii* among the pregnant women was 46 (76.67%)/60, in which 42(70%) were positive for IgG antibodies and 2(3.33%) were positive for IgM. Within the research investigation, there found a prevalence of *Toxoplasma gondii* infection and various risk factors like raw meat usage, vegetables usage, contact with cats, involving in cattle, water source and washing the hands after contacting with pets. There found more risk for the pregnant women in contact with cats. Therefore, it is recommended to provide the health education regarding pregnant females must avoid raw or undercooked meat eating as well as having a contact with cats in an attempt to prevent the abortion or defects during pregnancy.

**Key words:** *Toxoplasma gondii*, seroprevalence, risk factors.

## **20.Genetic Polymorphism of Echinococcus Granulosus Based on Mitochondrial Nadh Dehydrogenase Subunit 1 Gene**

**Rehman Ali<sup>1</sup>, Ijaz Ali<sup>2</sup>, Shahid Niaz Khan<sup>1</sup>**

<sup>1</sup>Department of Zoology, Kohat University of Science and Technology Kohat, Pakistan

<sup>2</sup>Department of Biosciences, COMSATS University Islamabad, Pakistan

### **ABSTRACT**

Cystic Echinococcosis (CE) is a serious zoonotic and pathologically important helminthic infection caused by hydatid cyst of *Echinococcus granulosus*. It is highly endemic in the herd keeping areas of the world including Pakistan. The current study was designed to assess the presence of the parasite in livestock and recognize the active genotype (s) of *E. granulosus* in Khyber Pakhtunkhwa, Pakistan. A total of 1,587 animals, including cows, buffaloes, goats, and sheep, were examined and 135 hydatid cyst samples were collected. The overall prevalence of CE was found to be 8.5% among the examined animals. CE was highly prevalent in cows 61.5%, followed by sheep 22.2%, goats 11.1%, and buffaloes 5.2%. Gender-wise distribution revealed that females were more likely to be infected with CE 11.11% than males 6.41%. CE infection was found to be highly prevalent 17.4% in older age groups of animals than youngsters 1.1%. Among the cysts, 55.5% were found in livers, 37.0% in lungs, and only 7.4% cysts were found both in liver and lungs of the infected animals. For molecular analysis, partial sequence of mitochondrial NADH dehydrogenase subunit 1 (NADH-1) gene, was used. The obtained

sequences were aligned and compared with the reference sequences retrieved from National Center for Biotechnology Information (NCBI). Phylogenetic analysis revealed *E. granulosus* genotype 1 (G-1) as the prevailing genotype in the study area. The study confirms the presence of *E. granulosus* (G-1) in the study area and that livestock may have a prominent role in transmission dynamics of the parasite.

**Keywords:** *Echinococcus granulosus*, Zoonotic, Echinococcosis, Genetic polymorphism.

## **21. The Use of Words for Effective Written Communication: Pits and Paths of Graduate Level Students in Bahawalpur City, Pakistan**

**Hurria Maharvi**

The Government Sadiq College Women University Bahawalpur

### **ABSTRACT**

The current research was conducted in an attempt to determine the difficulties which students face in their written communication. This study also aimed at exploring the challenges of students in written communication such as grammatical errors, structural errors and pragmatic issues. Two questionnaires were used as a research tool. By using random sampling technique, data was collected from 45 participants of graduate level and 15 teachers from governments schools of Bahawalpur City, Punjab, Pakistan. SPSS (version 23) was used in order to analyze the data and presented in tabulated form. The study concluded that students make errors due to lack of vocabulary items, mother tongue interference, interlanguage and intra language transfer. With the help of these aspects students would be able to create an effective work to communicate.

**Key words:** Effective use of words, written communication, pits and paths.

## **22. Legislative Oversight in Nigeria: Issues and Challenges**

**Haruna Yerima<sup>1</sup>, Lawal Saleh<sup>1</sup>**

<sup>1</sup>Department of Public Administration Faculty of Administration Ahmadu Bello University Zaria, Nigeria

### **ABSTRACT**

Legislative oversight is one of the key roles of the legislature in Nigeria that is carried out to review, monitor and evaluate government policies and programmes and ensure checks and balances in the governance of the country. This paper examines the issues and challenges to the conduct of the oversight function by the National Assembly in Nigeria vis-à-vis the forms, powers and obstacles to its conduct. Data used were generated from secondary source. The paper found that although the National Assembly is constitutionally vested with numerous powers to

conduct oversight of various forms, a lot of institutional, attitudinal and other challenges characterized the conduct and these undermine the democratic practice in the country. It is concluded that enhancing efficiency and effectiveness as well as checks and balances in the governance process of the country through legislative oversight could only be achieved if the identified obstacles characterizing legislative oversight are sufficiently addressed.

**Keywords:** Legislative oversight, Legislature, oversight powers, oversight challenges.

### **23. Comparative Hematological Analysis of Columba Livia Infected with Ectoparasites in District Kohat, Khyber Pakhtunkhwa, Pakistan**

**Sadia Ghaffar<sup>1</sup>, Sumbal Haleem<sup>1</sup>, Noor ul Akbar<sup>1</sup>, Riaz Amin<sup>1</sup>**

<sup>1</sup>Department of Zoology, Kohat University of Science and Technology Kohat, Pakistan

#### **ABSTRACT**

Ectoparasites come under the classification of arthropods, may be obligatory parasites, programmed to feed on a living hosts to complete their life cycles. Several species of ectoparasites like lice, flies, mites and ticks can be used to infest *Columba Livia*. Ectoparasites affect bird health directly by causing irritation, discomfort, tissue damage, blood loss, toxicosis, allergies, anemia, elevated mortality, susceptibility to other infections, play a role as intermediate host, dermatitis and initiate excessive preening which in turn reduce meat and egg production quantity as well as quality, becomes a source to create the diseases in birds like Pasteurellosis, Newcastle disease etc. The present study was performed with the aim to carry out comparative hematological analysis of non-infected and infected *C. Livia* with ectoparasites in district Kohat of province Khyber Pakhtunkhwa, Pakistan. A total of 253 pigeons were examined. Out of the total pigeons examined, 186 were found to be infested with ecto-parasites. The overall infestation rate during the study period was (73.51%). For comparative hematological analysis, 2 ml blood samples were collected from both infected and non-infected *C. Livia* by venipuncture of brachial vein and will be transferred to sterile glass bottles containing Ethylenediamine tetra acetic acid (EDTA) as anticoagulant. The basic hematological parameters of pigeons such as RBC, MBChB, MCV and PCV was determined according to age and gender. The data were analyzed statistically by SPSS, 2016 for chi square test. In the current study, it was found that the RBC was  $3.74 \pm 0.3$ , WBC was  $46.2 \pm 3.1$ , Hb was  $13.16 \pm 0.7$ , MCV was  $170 \pm 7.5$  and PCV was  $50.6 \pm 2.0$  in non-infected male pigeon followed by  $3.58 \pm 0.3$ ,  $47.8 \pm 3.2$ ,  $12.86 \pm 0.7$ ,  $175.6 \pm 7.3$  and  $49 \pm 2.0$  in infected male pigeon. While in female population it was slightly differ showing as RBC was  $3.46 \pm 0.4$ , WBC was  $44.6 \pm 2.5$ , Hb was  $12.08 \pm 1.1$ , MCV was  $202.2 \pm 6.5$  and PCV was  $46.4 \pm 2.5$  in non-infected female pigeon followed by  $3.32 \pm 0.3$ ,  $46.2 \pm 2.6$ ,  $11.7 \pm 1.0$ ,  $212.4 \pm 5.1$  and  $44.4 \pm 1.7$  in infected female pigeon. Age related differences was also recorded for non-infected and infected *C. Livia*. The young pigeons show less value of RBC, Hb and PCV than adult pigeons. There are no significant differences in value of WBC and MCV in young and adult pigeons. In case of infection the value of RBC, Hb and PCV decreases in both young and

adult pigeons. While WBC and MCV shows increase in values in both non infected and infected pigeons. Results of this study might be useful for controlling measures against the *C. Livia* infestation with ectoparasites and subsequently improving the health conditions and growth of pigeons.

**Key words:** Ectoparasites, *Columba Livia*, Hematology

## **24. Antibiotic Resistance Profile of Bacteria Isolated from Neutropenic Cancer Patients in Peshawar**

**Murtaza Khan<sup>1</sup>, Muhammad Nabi<sup>1</sup>, Muhammad Qasim<sup>1</sup>, Waheed Ullah<sup>1</sup>, Noor ul Akbar<sup>1</sup>**

<sup>1</sup>Kohat University of Science and Technology, Kohat, Pakistan

### **ABSTRACT**

Cancer is one of the leading causes of mortality worldwide especially in developing countries. Chemotherapy causes immunosuppression in cancer patients which is characterized by neutropenia. The current study was designed to analyze antibiotic resistance pattern of blood borne bacteria and to understand the antibiotic resistant patterns in Institute of Radiotherapy and Nuclear Medicine (IRNUM) Peshawar after the approval of Research and Ethical Committee (KUST-REC), Kohat University of science and technology, Kohat. A total of 62 blood samples (n=39, male and n=23 female) were collected from the admitted cancer patients who were clinically suspected to bacteraemia in total duration of six months from August, 2019 to January, 2020. Briefly, blood samples were inoculated in Brain Heart Infusion broth (BHI) media and incubated overnight at 37°C followed by sub culturing on Blood and MacConkeys agar media. The isolates were identified through microscopic examination and by biochemical tests. Macfarland standard was prepared from bacterial culture followed by preparation of bacterial lawn on Mueller Hinton Agar (MHA) media. Standard antibiotic discs were used for culture sensitivity. Only *E. coli* was observed 100% resistant to Urxin, Augmentin, and Fosfomycin while 100% sensitive to Sulzone, Fosfomycin, Meronem, Impinem, Fosfomycin, Nitrofurantoin, and Amikacin. Moxifloxacin, Ciprofloxacin, and Fortum, were resistant 45.45%, 18.18%, 72.22% respectively and Moxifloxacin, Ciprofloxacin, and Fortum were 54.54%, 81.82%, and 27.27% respectively were sensitive to *E. coli*. Only *E. coli* was found in cancer patient and the current study revealed that the cancer patients should to be tested for drug sensitivity and resistivity pattern.

**Keywords:** Chemothreapy, Mueller Hinton Agar; *E. coli*, Neutropenia

## **25. Molecular Epidimiology of Giardia Lamblia in Water Sources of District Kohat, Khyber Pakhtunkhwa, Pakistan**

**Syed Mohsin Shah<sup>1</sup>, Hidayat Ullah Khan<sup>1</sup>, Noor ul Akbar<sup>1</sup>, Naushad Hussain<sup>1</sup>, Shahid Niaz Khan<sup>1</sup>**

Kohat University of Science and Technology, Kohat

## ABSTRACT

*Giardia lamblia* (*G. lamblia*) is the causative agent of Giardiasis in both high- and low-income countries. The incidence of *G. lamblia* is generally higher in those areas where basic sanitation is not good and have no accesses to clean water. Giardiasis is transmitted from person-to-person directly and spread by fecal–oral route especially through contaminated water drinking. The present study was conducted to evaluate the occurrence of *Giardia lamblia* in (KDA, Jungle Khel, Chikerkot, Bahadarkot, College Town, Jarma, Surgulla, Gamkol) in district Kohat from (February to July 2017). A total of 75 water samples were collected in 1.5L sterilized and properly labeled plastic bottles. The water samples were filtered through Whatman filter paper and residue were collected in 15 ml falcon tubes for further process. The cleaned slides were made from the residue stained with hematoxylin stain and DNA was also extracted from the residue following standardized protocol which was subjected to PCR and the amplified product was visualized by 2% agarose gel. In the present study, the overall prevalence of *G. lamblia* in different water sources was observed 8/75(10.67%) including 6/50(12%) Tape water, and in Bore water 2/25 (8%) was recorded. The highest ratio was found in Tape water. It was revealed from the current study that *G. lamblia* was present in water sources of some areas in District Kohat which may be, due to poor hygiene practices and improper management of water scheme. The current study recommended in order to determine the genomic assemblages within the territory as well as stream lining the work assignments for developing the recombinant DNA vaccine against *Giardia lamblia*, further genomic study may be carried out

**Key words:** *Giardia lamblia*; Water; PCR; Kohat.

## 26. Phlebotomine Sand Flies Vectors of *Leishmania* Circulating in District Kohat Pakistan

Muhammad Nisar<sup>1</sup>, Noor Ul Akbar<sup>1</sup>, Murtaza Khan<sup>1</sup>, Muhammad Nabi<sup>1</sup>, Shahid Niaz Khan<sup>1</sup>,  
<sup>1</sup>Kohat University of Science and Technology, Kohat, Pakistan

## ABSTRACT

Leishmaniasis is caused by *Leishmania* parasites transmitted by several sand fly species of subfamily Phlebotominae. To control this infectious disease in endemic areas the study of distribution of sand flies is very important. The current study is designed to analyze the distribution of *Phlebotomus* sand flies in five different endemic areas of District Kohat regions of Pakistan. A total of 532 sand flies (382 male and 150 females) were trapped by using CDC light traps from April to August 2019. Morphologically all the sand flies were differentiated into two species of genus *Phlebotomus*. The prevalence rate of *Phlebotomus papatasi* (*P. papatasi*) species was observed 75.94%, significantly high as compared to *Phlebotomus sergenti* (*P. sergenti*) which was 24.06% in district Kohat. The prevalence rates of *P. papatasi* and *P. sergenti* were different in all five regions of district Kohat in which the prevalence rates of *P. papatasi* species

of sand fly were 76.92%, 63.86%, 84.75%, 78.86%, 75.51% observed in Surgul, Nasrat Khel, Muslim abad Gumbat, and in Dhoda villages respectively. Similarly, the prevalence rates of *P. sergenti* in Surgul, Nasrat kheil, Muslim abad Gumbat, and in Dhoda villages were observed 23.08%, 36.14%, 15.25%, 21.14%, and 24.49% respectively. Male sand flies of *P. papatasi* species were observed abundantly (52.66%) followed by female *P. papatasi* sand flies (24.26%). Male and female sand flies of *P. sergenti* species were found 14.20% and 8.8% respectively. Similarly, in Nasrat kheil village the male sand flies of *P. papatasi* species were found abundantly (42.16%) followed by male *P. sergenti* sand flies (27.71%) while the female sand flies of *P. sergenti* species were found (8.4%) and *P. papatasi* species were (21.68%). In Muslim abad village the male sand flies of *P. papatasi* species were found abundantly (66%) followed by female *P. papatasi* sand flies (18%). Male and female sand flies of *P. sergenti* species were found (11.8%) and (3.3%) respectively. In Gumbat village the male sand flies of *P. papatasi* species were found abundantly (64%) followed by female *P. papatasi* sand flies (14%). Male and female sand flies of *P. sergenti* species were found (14%) and (6.5%) respectively. In Dhoda village the male sand flies of *P. papatasi* species were found also abundantly (50%) followed by female *P. papatasi* sand flies (25.51%). Male and female sand flies of *P. sergenti* species were observed (19.38%) and (5.10%) respectively. Novel strategies for disease control and treatment require a better understanding of vectors diversity; therefore, the identifications of both sand fly and *Leishmania* species are of great importance for the disease eradication in the endemic areas.

**Keywords:** Leishmaniasis; Sand fly; *P. papata*; *P. sergenti*

## **27. Illicit Drugs Consumption and Productivity in the Informal Economy**

**Agba, A. M. Ogaboh<sup>1</sup>, Edem Efiom O<sup>1</sup>, Ntiense Akpabio G<sup>1</sup>.**

<sup>1</sup>Department of Sociology, University of Calabar, Nigeria

### **ABSTRACT**

This study examined the correlates between illicit drugs consumption and productivity in the informal economy. The survey research design was employed. A sample of 400 participants was drawn using Taro Yamane statistical technique while the questionnaire was used to gather information from participants. Data obtained were analysed using Pearson Product Moment Correlation Co-efficient. Findings revealed that illicit drugs consumption significantly influence artisans to-work-attitude, work output and creativity at the workplace. Based on this outcome, policy reforms that ensure adequate regulation of illegal drugs and punish of culpable was recommended.

**Keywords:** Illicit drugs, artisans, productivity, artisans' attitude and output.

## **28. Covid-19, Lockdown and Intimate Partner Violence in Calabar**

**Iji, Mary E<sup>1</sup>, Omang, Thomas A<sup>1</sup>, Angioha, Pius U<sup>1</sup>**



<sup>1</sup>Department of Sociology, University of Calabar, Cross River State, Nigeria

### **ABSTRACT**

The novel SAR- Covid-2 virus known as Covid 19 pandemic continues to cause serious health issues globally, measures adopted by the various government to curb its spread has proved efficient but with serious social and economic consequence, leading to psychological stress, and strain in couple relationship with an attendant increase in intimate partner and other domestic violence. This study empirically examines the extent to which the Covid 19 has increased intimate partner violence. Adopting the descriptive survey research method, data was collected. 417 participants selected from Calabar metropolis using the purposive and random sampling technique. The instrument of data collection was the semi-structured self-developed questionnaire. Data collected from the field was analyzed using descriptive and influential statistics at 0.05 level of significance out of the 417 instruments, only 393 was returned and used for analysis. The result from the descriptive analysis revealed that most participants (85%) reported abused during the lockdown. The most common form of abuse was emotional abuse (45.5%). Findings also revealed the rate of abuse was far higher when compared with before the Covid 19 lockdown. From the correlation analysis, result revealed a significant correlation between Covid 19, lockdown and intimate partner violence. The study concludes that COVID 19, the lockdown has significantly increased the incidence of intimate partner violence in Calabar, cross river state. Hence, there is need for the government to include Covid 19 essential services that will focus on intimate partner and other domestic violence response, provide the necessary resource that will make them function properly and identify ways to make them assessable.

**Keyword:** Covid-19, lockdown, intimate partner violence, domestic violence, Calabar

## **29.Structural motivating factors towards Cloud shadow IT Usage: Strain Theory Perspective**

**Ogedengbe Fowokemi**

Accounting Information Systems, Universiti Utara Malaysia

### **ABSTRACT**

The shift in the paradigm of information systems (IS) caused by technological advancement has propelled many organizations to shift their IS from the traditional hosting system to the cloud-based system, otherwise called cloud computing. As organizations are accepting the usage of cloud systems, so also is the increase in the usage of the cloud shadow IT. Cloud shadow IT in this regard refers to all cloud interactions that are unsanctioned and the usage of all cloud systems that were not provided and approved by the organization's IT department for usage within the organization. Cloud shadow IT usage has, therefore, been classified as deviant

behaviour towards the organization. Security reports, whitepapers and previous studies have raised the alarm of the increasing security impacts of employee's usage of cloud shadow IT. Moreover, many of these cloud shadow systems have poor security and privacy system, and more so, the data logs are missing. Some of the security implications of cloud shadow IT usage include infiltration of the organization IS, data breaches, confidentiality breaches, exposures of organization IS to malware, financial losses and cybercrime insurgencies. Although the security implication of cloud shadow IT usage is high, yet, there are limited empirical studies in this regard. Hence, based on the behaviourist epistemology, this study uses strain theory to examine the structural motivating factors towards employee's usage of cloud shadow IT. Strain theory is a psychology theory that proposes that the imbalance in structural factors influence mental strain and human deviant behaviours. The usage of strain theory in IS and shadow IT field is lacking. This study is an attempt to propose a conceptual model that explains the relationship between organization structural imbalance and employees shadow IT usage. This study will not only examine the relationship between structural factors and shadow IT usage but, it will also examine the mediating role of cognitive strain in this relationship.

**Keywords:** Cloud Shadow IT; Information Systems (IS); Employee Deviant Behavior; Strain Theory; Behaviorist Epistemology; Structural Factors.

### **30.Impact of Ownership Concentration on Firm's Business Risk: Moderating Role of Leverage**

**Abdullah Talal, Dr. Muhammad Abbas**

#### **ABSTRACT**

The purpose of this paper is to examine the influence of ownership concentration on the firm's business risk. The authors further investigate if financial leverage has any moderating effect on the relationship between ownership concentration and business risk.

The study employs the Signaling theory, Agency theory, and Packing order theory to evaluate the influence of ownership concentration over a firm's business risk. The authors use a regression approach to measure the performance of family-owned firms against that of widely held firms.

The study confines to the firm's business risk of emerging markets. The results show that family-owned firms are dominant with concentrated ownership. The business risk has significantly negative relationships with family firms and high family concentrated firms have high business risks. The study further illustrates that family ownership concentration influences the level of the business risk of risk. The findings further indicate that leverage has no significant role in affecting business risk. Results also confirm that firms paying high dividends are signaling fewer business risks.

The evidence supports the proposition that Ownership concentration plays a great role in the firm's business risk and leverage does not affect business risk. The originality of the paper lies in

factoring business risk while explaining the role of ownership concentration and comprising family and non-family firms in emerging markets like Pakistan where more than 80% of firms are highly ownership concentrated.

**Keywords:** Family firms, Ownership concentration, Business risk, Agency theory, Leverage

### **31. Energy Crisis in Pakistan: Socio-Economic Implications and the Way Forward**

**Muhammad Shamshad<sup>1</sup>, Dr. Farooq Arshad Jahanzeb Akmal<sup>2</sup>**

<sup>1</sup>University of the Punjab, Lahore

<sup>2</sup>Bahauddin Zakariya University, Multan

#### **ABSTRACT**

Pakistan has been trapped by a blend of problems such as political chaos, economic turmoil, social unrest, religious extremism, rampant corruption, unemployment, pervasive poverty, child labor, moral degeneration etc. The energy crisis has added fuel to the fire; it has created many more socio-economic issues for the whole nation. This research study has highlighted the impact of the energy crisis in Pakistan particularly on its society and economy. It has enunciated that the energy crisis has deteriorated social setup in Pakistan as it has disturbed the domestic routines, institutional schedules, health facilities, transportation system and educational procedure. Similarly, the crisis has pushed Pakistan into an economic decline. Most of the local and foreign investors have migrated to other states due to non-availability of electricity, gas and petroleum products. Resultantly, Pakistan is experiencing the lowest ebb of Foreign Direct Investment (FDI). Unannounced load-shedding has not only discouraged the industrialists but also has decreased the ratio of production- a severe setback to the rate of exports. Non-availability of energy has decreased the ratio of agricultural productivity that has a significant share in the gross domestic product (GDP) of Pakistan. The cottage industry has also fallen victim to the energy crisis. In this way, there is a restrained flight of foreign capital to the country. In the end, the study has recommended some policies which can be formulated and practiced by the ends of both the government and the public to discard the energy crisis.

**Keywords:** Pakistan, Load-Shedding, Domestic Suffering, Reserves and economic Imputation.

### **32. Factors Influencing the Development of Arabic/English Translation Skills Among Arabic Students in North-Western Nigerian Colleges of Education**

**Aliyu Ahmad<sup>1</sup>, Dr. Syed Nurul Akla Bn Syed Abdallah<sup>1</sup>**

<sup>1</sup>University Putra Malaysia

#### **ABSTRACT**

The research aim is to investigate possible ways to develop the Translation skills, and also find possible solutions for the Translation problems among Arabic students in Nigerian colleges of educations and other Schools of higher learning. The research work is Quantitative by nature, and it's basically focused on Arabic Students in colleges of education within Zamfara state and other neighboring states in Nigeria as the population of the study, while the researchers selected randomly a total number of 100 Students as the sample out of that population. At first instance, four Research Questions were designed in this study based on the factors that the Students of Arabic in Nigerian Colleges of Education are in massive need in order to develop the Arabic/English Translation Skills. These factors include: attitude, commitment, perceive relevance, level of satisfaction and intention. Four null hypotheses were created also based on these RQ, while pared sample T-Test has been conducted using SPSS Version 20.0 to test these hypotheses. A one-way analysis of variance (ANOVA) was conducted to evaluate the later null hypothesis of the fifth RQ which believed that both male and female Arabic Students have the same intention of developing Arabic/English Translation Skills in Nigerian Colleges of Education. The Significance of this study cannot be overemphasized. The findings of the research will be of greater help to Arabic students, particularly in Zamfara state and Nigeria at large. This is because as was indicated earlier, that the study will be based for Arabic Students. Likewise, it will also help the Federal Ministry of Education, its sub division, NGOs and relevant stakeholders as well as colleges and other higher institutions of learning in the country. This study will contribute significantly to the researchers that may wish to carry out similar work in the future.

**Keywords:** Factors, influencing, Development, Arabic/English, Translation, Skills, Intention.

### **33.Impact of Social Obligations on Economic Agency of Women: A Case Study of District Bahawalpur**

**Ansar Abbas<sup>1</sup>, Dr. Shakil Akhtar<sup>1</sup>, Muhammad Jahanzeb Akmal<sup>2</sup>**

<sup>1</sup>Department of Political Science, IUB Bahawalpur

<sup>2</sup>Department of International Relations, BZU Multan

#### **ABSTRACT**

Gender power relations occur in the backdrop of socio-political and economic environment of any society. Hence the economic potentials of individual women are always influenced by environment in which gender power relations are woven and practiced. Social obligations are those tasks which are predominantly associated with women and economic agency is the ability to utilize their incomes according to the purposes they value for themselves and families. The determinants of economic agency are paid employment, participation in decision making direct or shared and opportunities and bargaining power to continue job. This research argue that social obligations as considered women's responsibility has the potential to circumscribe the economic agency of women. It tries to uncover what is the nature of social obligations for working women

in Bahawalpur? How and to what extent social obligations hinder women's economic agency. It is also endeavored to explore that what effects employment does have on the decision making of women and how they bargain to achieve economic agency through its determinants. Data for this research was collected from 51 working women, i.e. doctors, lawyers, teachers, bankers, policewomen and customer services professional using fixed response questionnaire through convenient sampling method. Data is analyzed with the help of SPSS, further crosstabs are made to understand the various relations of economic agency and social obligations, through descriptive statistics. This research finds out that on various occasions social obligations become a source of inspiration for women to achieve economic agency, while for some women at various occasions they appear to limit their economic agency. Social obligations create the situations for women where they become in fix to resolve the riddles of work family obligations and fell victim to poor time management. Preoccupation of domestic work and job stress lead women to health deterioration. This research concludes that the effects of social obligations are contextual and play through the intersects of family size, family background and nature of profession in Bahawalpur, and can be deeper if studied at national level. This research recommends that social obligations as an important feature of care economy must be raised as a policy matter and political agenda in Pakistan.

**Keywords:** Gender and Development, Care Work, Economic Agency, Household work, Bahawalpur, Pakistan

### **34. Innovation-Driven Entrepreneurship and Governance in India Vis-À-Vis Covid-19**

**Bhumika Sharma<sup>1</sup>, Mohammed Muqtadir<sup>2</sup>**

<sup>1</sup>Research Scholar, Himachal Pradesh University, Shimla, India

<sup>2</sup>M.M. Public School, Pasonda, Uttar Pradesh, India

#### **ABSTRACT**

The pandemic has changed human lives. New studies and researches started since the announcement of pandemic and its effects. The countries across the world have adopted new strategies to govern and manage their people. The present situation calls for inclusive approach in terms of health, safety, education, jobs, food-security. The various international organizations such as United Nations and its agencies, World Bank, Amnesty International, etc. have shared frameworks to deal with Covid-19. The entrepreneurs as well as the Government decided not to let the health emergency stop lives. Start-ups are also backing up the government's public information campaigns on coronavirus by developing technology platforms to disseminate government notifications. The country presents an example of the triple helix model of innovation. The present paper aims to discuss some of the Covid-19 driven governance initiatives of the Government of India in different sectors. The study shall be doctrinal. It also covers the efforts made by the start-ups and other private individuals as a new way of life. The

researchers shall consult Reports of international organizations and the websites of government of India would be the main source. The study concludes that India, in spite of a large population and middle level of development has adopted location-tracking application for health, various resources for digital education and so on. India must take example from around the world and implement best practices in times to come.

**Key Words-** Covid, India, innovation, start-ups.

### **35.Impact of Microfinance Credit and Human Capital on the Women Business Sustainable Growth in Pakistan**

**Muhammad Makki Waheed<sup>1</sup>, Dr. Hayat Muhammad Awan<sup>1</sup>, Dr. Muhammad Sadiq Shahid<sup>2</sup>**

<sup>1</sup>Air University Multan

<sup>2</sup>BZU Multan

#### **ABSTRACT**

Microfinance playing very important role in economic development and has been recognized as a policy tool to lowering down the poverty. This paper explores an impact of access to microfinance on women entrepreneurial performance: we also explored the mediation role of human capital between microfinance and women entrepreneurial performance has been carry out. The primary data was collected through questionnaire and respondents were selected through purposive sampling techniques from 204 women entrepreneurs whose obtained microfinance loans from MFIs in Multan District. Results show that there exists a positive and significant relationship between the microfinance and human capital and the women entrepreneurial performance. Moreover, it was also found that human capital significantly mediates the relationship between microfinance and women entrepreneurial growth. It is concluded that there are more opportunities are prevailing for women entrepreneurs which have a higher human capital and they are more likely to exhibit the creative thinking while envisioning the novel products, services and processes in order to enhance their growth rate. The human capital plays a vital role in the women entrepreneurial growth. There are also opportunities for other entrepreneurs, NGOs as well as other organizations to provide the opportunities for existing or potential women entrepreneurs so as they may build their human based capital.

**Keywords:** Microfinance, Human capital, Women Business sustainable growth.

### **36.Discourse Analysis of Khushwant Singh's Train to Pakistan (A Quest to Justify the Abruptness of its Ending)**

**Ayesha Akhtar Pirzada**

#### **ABSTRACT**

The present study is an insight to highlight the way with which Khushwant Singh has ended his famous partition novel 'Train to Pakistan'. In order to justify the oddity due to abrupt ending of the novel, discourse analysis is done. Therefore, to analyze the ending of the novel The Cooperative Principle has been employed, which was proposed by the British philosopher of language Herbert Paul Grice in 1975. According to H. P. Grice every human conversation is based on a shared principle of cooperation, which means participants of a conversation complies mutually to obey few principles or maxims. The Gricean Principles or Maxims are considered as a standard, in the field of Pragmatics, to analyze any discourse situation or narration of any text. Thus, to do the discourse analysis, H. P. Grice's Cooperative Principle is taken as a theoretical framework in this study, and the text from page 168 to 207 of the novel is taken for the said purpose. The mentioned pages of the text of Train to Pakistan are selected due to the fact that it is the description of the whole plan to massacre Muslim Refugees' train and also in them are the concluding moments of the novel. As this study is an analysis of a text selected from the novel, so it is of qualitative nature. The presentation of analysis is textual. The analysis shows the extent to which the two maxims of cooperation i.e. Quantity and Manner are flouted. It is due to this violation that it brings oddity in the closing of the novel.

**Keywords:** Pragmatics, Cooperative Principle, Maxims, Massacre, Partition, Muslim Refugee.

### **37. Women's Rights in South Punjab: A Case of Television Dramas**

**Shakil Akhtar<sup>1</sup>, Ansar Abbas<sup>1</sup>, Zubair Shafiq<sup>1</sup>, Safdar Hussain<sup>1</sup>**

<sup>1</sup>The Islamia University of Bahawalpur, Pakistan

#### **ABSTRACT**

Television drama has been a popular source of entertainment in Pakistan since the golden era of state-owned channel PTV. Throughout its history, this medium has been focusing on the social and human rights issues of the society when the main attention was given to the issues of class, religion, and political problems. Among these, some dramas also focused on the rights of the women of Pakistan. However, women living in South Punjab which have been subject to serious human rights violations were given lesser attention with a few exceptions such as *Darya* (1986) and *Pyas* (1989) written by Asghar Nadeem Syed, and were aired on PTV. Both of the dramas gained huge popularity among the audience, despite the fact that Pakistani society is a patriarchal society. Famous Bollywood film-writer Javed Akhtar wanted to convert the script of *Pyas* into a Bollywood film in 2016. *Darya* has been the part of syllabus of Masters in Urdu of The Islamia University of Bahawalpur for almost two decades. The current study aims to present a qualitative analysis of both dramas so that to explore how women's rights were presented through the story and their characters. Moreover, this study also argues that women's rights in South Punjab highlighted in the two dramas are still relevant and need to be addressed by the state and society.

**Key Words:** State, Electronic Media, Drama, Women's Rights, South Punjab.

### **38.Design and Analysis of Various Pin Shapes**

**Muhammad Aamish Khan<sup>1</sup>, Engr. Aamir Sohail<sup>1</sup>**

<sup>1</sup>Department of Mechanical Engineering, UET Taxila

#### **ABSTRACT**

Knuckle joint is used to connect two parts subjected to tensile loads allowing some angular motion also. Knuckle joint is not the permanent joint and can be connected and disconnected as required. So, they are designed in such a way that failure occurs at key as it is easily replaceable. Various studies are made to decrease the manufacturing cost and material cost for this component. This paper deals with some naval pin designs and their comparison using FEA method. In this paper double shear is analyzed for various designs for key and the best one is suggested. SolidWorks is used to design knuckle joint and then Ansys 19 is used for Finite Element Analysis.

**Key words:** Knuckle Joint; F.E.A; Ansys 19; Solid Works; F.O.S.

### **39.Design and Analysis of Dual Acting Opposed Piston Mr Damper**

**Muhammad Aamish Khan**

Department of Mechanical Engineering, UET Taxila

#### **ABSTRACT**

Magnetorheological dampers are dampers filled with magnetorheological fluid which is controlled by a magnetic field, usually using an electromagnet. This report deals with improvement in MR dampers. The design proposed in this paper consists of two pistons with two linear generators connected to each one and both pistons work as opposed piston moving directly opposite to each other. This model utilizes six forces converging system to stability leading to more compactness. Most of the forces including in this system vary with topology of road and velocity of car so leading to better robustness. Linear actuation for this model is also analyzed.

**Key words:** MR damper: MR fluid: Linear actuation

### **40.Simulation study of heavy-metal gallate glasses for the shielding of gamma radiation**

**Bushra Sarfraz<sup>1</sup>, Aamir Farooq<sup>2</sup>, Sajid Khan<sup>1</sup>, Rashid Ahmad<sup>1</sup>, Rizwan Nasir<sup>1</sup>**

<sup>1</sup>Department of Physics, Kohat University of Science and Technology, Kohat, Pakistan

<sup>2</sup>Bannu Institute of Nuclear Medicine, Oncology and Radiotherapy, Bannu, Pakistan

#### **ABSTRACT**



Different materials like lead and concrete are commonly used for shielding purpose but they have certain limitations such as their non-transparency to visible light thus restricts one to see through them and toxic nature of lead. Secondly when concrete is exposed to the radiations for a longer period of time its mechanical strength is reduced. Therefore, the quest for an ideal shielding material is still going on. The glasses are the prominent material for the shielding of gamma radiations due to their transparent nature for visible light, recyclability and their physical properties are easily changed by the additive of different compounds in their composition.

The aim of this work is to study the shielding properties of heavy-metal gallate glasses ( $Tl_x-Bi_{80-x}-Ga_{20}$ ,  $xPb-Bi_{80-x}-Ga_{20}$ ,  $xPb-xBi-xGa$  and  $xTl-xPb-xBi-xGa$ ). Different properties like Transmission, half layer value, Linear and Mass attenuation coefficient, effective atomic number and electron density is studied by employing the Monte Carlo N-particle transport code.

**Keywords:** Heavy-metal gallate based glasses, gamma ray shielding, half value layer, transmission, linear & mass attenuation coefficients, MCNPx and Xcom.

## **41. Simulation study of Thallium Tellurium based oxide glasses for gamma radiation shielding**

**Rizwan\_Nasir<sup>1</sup>, Aamir Farooq<sup>2</sup>, Sajid Khan<sup>1</sup>, Rashid Ahmad<sup>1</sup>**

<sup>1</sup>Department of Physics, Kohat University of Science and Technology, Kohat, Pakistan

<sup>2</sup>Bannu Institute of Nuclear Medicine, Oncology and Radiotherapy, Bannu, Pakistan

### **ABSTRACT**

Different glasses are investigated to shield gamma radiation which is hazardous to the human environment. Glasses are preferred over other materials due to their transparent nature, easy synthesis, molded in desire shape and low cost. The commonly used glasses are PbO based which provide effective shielding against gamma radiation. Due to few unwanted properties of PbO based glasses like toxic nature make the researcher to develop new glasses that offer maximum radiation protection and also to get rid of unwanted features. To obtain aforementioned objectives different types of glasses containing different types of oxides as ingredient are studied. The gamma radiation shielding depends on the features of the material such as thickness, atomic number and density. The gamma radiation absorption cross section increases with increase in atomic number. Therefore, the addition of heavy-metal oxides (Atomic mass > 100) to the composition of glasses are preferred to enhance their performance for gamma radiation shielding.

Different shielding properties of selected Thallium Tellurium based oxide glasses ( $xTeO_2-xTl_2O$ ,  $xTeO_2-xTlO_{0.5}-xPbO$  and  $xTeO_2-xTlO_{0.5}$ ) are studied by utilizing MCNPx transport code and XCOM data-base. The simulation results of shielding properties like transmission, half value layer (HVL), tenth value layer (TVL), linear attenuation coefficient ( $\mu$ ), and mass attenuation coefficient ( $\mu_m$ ), effective atomic number ( $Z_{eff}$ ) and electron density ( $N_{eff}$ ) of various selected thallium-based oxide glasses will be presented.

**Keywords:** Thallium based oxide glasses, glasses, gamma Radiation shielding, MNCPx, XCOM, linear and mass attenuation coefficient.

## **42. Pakistan's Trade performance and Potential with ASEAN Region: Recent Trends and Future Opportunities**

**Dr. Muhammad Abdul Kamal<sup>1</sup>, Saima Liaqat<sup>2</sup>, Dr. Khalid Khan<sup>3</sup>**

<sup>1</sup>Abdul Wali Khan University, Mardan KPK.

<sup>2</sup>Lahore College for Women University, Jhang Campus, Jhang

<sup>3</sup>Lasbela University of Agriculture, Uthal, District Lasbela, Balochistan

### **ABSTRACT**

As Pakistan is facing a huge decline in export growth as well as trade deficit has been escalated, this research investigations highlight the complementarity, comparative advantage and identifies the products to be exported within ASEAN. This is an attempt to scrutinize the dynamics of trade between Pakistan and ASEAN within 2003-2016 by extracting International Trade Centre (ITC), trade map data. The analyses are based on the Trade intensity index, the Revealed comparative advantage index, Trade complementarity index, and trade potential method. The results exhibit a higher level of comparative advantage Pakistan is enjoying in chapters 03, 08, 41, 61, 62, and 63 over ASEAN at the data regarding HS-2-digit product level. The trade complementarity of Pakistan is higher than Indonesia, Singapore, Thailand and Vietnam which is in equivalence with Malaysia and Philippines. The results illustrate that there exists a huge trade potential between Pakistan and ASEAN member countries. The practical contribution of these findings may be for policy consideration in order to identify the specialization of product to enhance competitiveness and to promote the growth of economy.

**Keywords:** ASEAN, Pakistan, Complementarity, Comparative advantage, Trade potential, Export intensity, Competitiveness.

## **43. Design and Analysis of a Closed Loop Geothermal Air Conditioning System**

**Hammad Ali Sher<sup>1</sup>, Abdul Basit<sup>1</sup>, Ammar Mushtaq<sup>1</sup>, Amjad Pervaiz<sup>1</sup>**

<sup>1</sup>University of Engineering and Technology Taxila, Punjab, Pakistan

### **ABSTRACT**

The need to address climate change caused by greenhouse gas emissions and energy crisis attach great importance to research aimed at using renewable energy. Geothermal energy is best alternative concerning the production of energy for air conditioning of buildings (cooling). Conventional AC when used as a single unit consume considerable amount of energy. Our study focusses on coupling the AC system with cooling gained from Geothermal Energy. In our study

we cooled down the condenser of conventional AC with water coming from geothermal source. We did our analysis on the condenser of 1-ton AC by combing it with geothermal heat exchanger. Geothermal heat exchanger is designed with 30 HDPE slinky coils in horizontal configuration at the depth of 10 feet. Condenser configuration was made of tube in tube type. Outer tubes are of HDPE pipe coupled with geothermal system while inner tubes are of LDPE pipe to give flexibility in bending. Flow was set in counter flow direction. By doing the analysis of three-dimensional design using Solid Works we achieved temperature difference of around 7-8 kelvin in Geothermal system while 2-3 kelvin in condenser. This temperature difference can easily provide full BTUs in hot summer days and amount of energy AC compressor use to compress the gas is significantly reduced. Fluctuations in temperature difference are reduced as water iteration through geothermal increases. Our system is well design to cover the backdrop of decrease in cooling of conventional AC in summer. While in normal outside temperature it increases the efficiency of AC system.

**KEYWORDS:** Climate Changes, Geothermal, Renewable Energy, Condenser, Efficiency, Environment friendly.

#### **44.Pakistan-China Relations: Perceptions of the Pakistani Educated Lot**

**Safdar Hussain<sup>1</sup>, Shakil Akhtar<sup>1</sup>, Sahrish Safdar<sup>1</sup>, Muhammad Azhar<sup>2</sup>**

<sup>1</sup>Department of Political Science, The Islamia University of Bahawalpur

<sup>2</sup>Department of Political Science, GCU Faisalabad

#### **ABSTRACT**

Pakistan and China enjoy multifaceted relations covering many aspects of bilateral relations. For Pakistan, China has been a source of significant military, defense and economic assistance. Likewise, Pakistan's geostrategic location has advanced China's access to Central Asia, South Asia, and the energy-rich Middle East. Furthermore, the emerging Indo-US strategic partnership in the 21st century is pushing Pakistan-China even closer. In previous literature, the leadership in Pakistan found itself perceiving the relationship with China as reliable, time-tested and extraordinarily special. But the perception of the Pakistani people, mainly the educated lot, is missing in previous studies. While there are some surveys that are limited in scope and cover general aspects of the relationship, the current aspect of the it is missing. Therefore, in this study, we focus on the point of view of the Pakistani educated lot emphasizing how they perceive Pakistan-China relations mainly in security, strategic and economic field. Among the main findings is that the vast majority of educated Pakistanis see China as more trustworthy than the United States, the majority believe Pakistan-China relations are mutually beneficial. Surprisingly on the CPEC issue, many believe it will bring Chinese FDI, but the CPEC benefits China more than Pakistan. Finally, Pakistani educated lot believe China is great help against the arch enemy India. Using convenient sampling, we use a closed ended questionnaire to conduct an empirical analysis.

**Key Words:** China, Pakistan, India, USA, CPEC, Educated Pakistanis

## **45. Contraceptive utilisation and women development in Nigeria**

**Udom, Hannah Thompson<sup>1</sup>, Mary, Iru Iji<sup>1</sup>, Asari, Anam E.<sup>1</sup>**

<sup>1</sup>Department of Sociology, University of Calabar, Nigeria

### **ABSTRACT**

The study examined the relationship between contraceptive utilisation and women development in Calabar, Cross River State, Nigeria. The study specifically identified commonly used contraceptive methods; benefits of contraceptive use as well as factors that barriers' women utilisation of contraceptives. The study adopts the survey research design and made use of the questionnaire and in-depth interview as instruments of data collection. Six-hundred (600) questionnaires were distributed out of which 579 were used for data analysis. Completed questionnaires were analysed using simple percentages and independent t-test statistical analysis to test the study hypotheses at 0.05 level of significance. Findings from this study revealed that there is a significant relationship between perceived effects of contraceptive use and women development and there is a significant relationship between societal perceptions to contraceptive use and women development. We conclude that contraceptive utilisation have complete influence to the outcome of women development in terms of educational attainment, career development, and wellbeing. In view of this findings, it was recommended among others that: government should seek cooperation with international bodies with regards to the implementation of reproductive health policies that focuses on the socio-demographic and health belief system of the people.

**Keywords:** Contraceptives, Utilisation, Education, Career development, Wellbeing, Perceived effects, Societal perceptions, Women development.

## **46. Segregation and wellbeing of third-generation migrants in Akpabuyo, Nigeria**

**Ojong, Felix. E., Agba, M. S., Edem, Okokon E., Agba, A.M. Ogaboh**

### **ABSTRACT**

The situation associated with the migrant population in any society is not devoid of challenges and is most time tainted with ethnic sentiment and social exclusion. This study, therefore, examined the effect of segregation on the wellbeing of third-generation migrants in Akpabuyo, Cross River State, Nigeria. Specifically, it investigated the upshot of employment, socio-political and economic exclusion on the wellbeing of thirdgeneration migrants. Sample for the study was selected using the multi-stage sampling technique. A structured questionnaire was used to elicit information from 331 respondents. Quantitative data generated were analysed at 0.05 level of

significance using Pearson Product-Moment Correlation Coefficient. Findings revealed that socio-political, employment and economic marginalisation of third-generation migrants negatively affect their wellbeing. Importantly, it accounts for a high level of unemployment and drug addiction, poor access to education and health, low level of income, high crime rate and lack of basic social amenities among third-generation migrants in Akpabuyo, Nigeria. Recommendations put forward include that government at all levels should adopt a comprehensive and inclusive policy that allows equality, assimilation and social cohesion among migrants and indigenes population.

**Keywords:** Third generation migrant, wellbeing, unemployment, socio-political and economic exclusion.

### **47. Genetic Characterization of Cytochrome C Oxidase Subunit 1 Gene of Echinococcus Granulosus in Livestock of District Bannu**

**Marina Khan<sup>1</sup>, Ijaz Ali<sup>2</sup>, Shahid Niaz Khan<sup>1</sup>**

<sup>1</sup>Department of Zoology, Kohat University of Science and Technology Kohat, Pakistan

<sup>2</sup>Department of Biosciences, COMSATS University Islamabad, Pakistan

#### **ABSTRACT**

Cystic Echinococcosis is a serious helminthic zoonotic infection caused by the tapeworm, *Echinococcus granulosus*. The disease is highly prevalent in the areas where humans, dogs and cattle reside in close proximity. On the basis of genetic examination there are 10 genotypes of *Echinococcus granulosus*. The current study was designed to evaluate the presence of the parasite in livestock and identify the active genotypes of *E. granulosus* in district Bannu of Khyber Pakhtunkhwa. A total of 1246 animals were examined and 112 hydatid cyst samples were collected. The overall prevalence of CE was found to be 8.99% among the examined animals. CE was highly prevalent in cows 59.82 %, followed by sheep 20.53 %, buffaloes 13.39, goats 6.25%. Gender-wise distribution revealed that females were more likely to be infected with CE 14.7 % than males 4.7 %. Infection rate was increasing from low to high with the increasing age of animals. Among the 112-hydatid cyst, 54 (48.21%) were found in livers, 48 (42.85%) in lungs, and only 10 (8.92%) cysts were found both in liver and lungs of the infected animals. For molecular analysis, genomic DNA was extracted from the fluid of fertile cysts and subjected to PCR targeting mitochondrial cytochrome c oxidase subunit 1 (COX-1) gene. The PCR amplified products were sequenced and phylogenetic analysis was performed. Phylogenetic analysis revealed *E. granulosus* genotype 1 (G-1) in all of samples. The study confirms the presence of *E. granulosus* (G-1) in the study area and that the livestock may have a prominent role in transmission dynamics of the parasite.

**Keywords:** *Echinococcus granulosus*; genotypes; COX 1; phylogenetic; Pakistan

## **48.Role of Technology integration with Reference to International Society for Technology in Education (ISTE)-Standard**

**Rabia Aslam<sup>1</sup>, Najmonnisa Khan<sup>1</sup>, Ushaque Ahmed<sup>1</sup>**

<sup>1</sup>Shaheed Zulfiqar Ali Bhutto Institute of Science and Technology, Karachi Pakistan

### **ABSTRACT**

The present study addresses the impact of technology integration on TPK according to the International Society for Technology in Education (ISTE-2008) Standards for Teachers in public and private universities of Engineering & Technology in Sindh, Pakistan. 260 teachers of public and private universities of Engineering & technology were selected on the basis of simple random sampling technique. Data was collected through questionnaire distribution. Strong significant correlation was found between ICT integration and teachers' professional knowledge, teachers' ability to engage in professional development, and teachers' ability to promote digital citizenship and responsibilities in students. It is recommended that teachers should plan their lesson according to ISTE-2008 standards which will not only boost their professional growth but will also promote digital citizenship in students.

**Keywords:** Digital citizenship, Teachers' Professional Knowledge, Technology Integration, ISTE-Standards, Professional Development.

## **49.Religion and Peace, Islamic history**

**Dr. Farzana Iqbal<sup>1</sup>, Zainab Iqbal<sup>1</sup>**

<sup>1</sup>The Govt. Sadiq College Women University, Bahawalpur

### **ABSTRACT**

The core objective for writing this piece of research work is the reconciliation of religion and peace in the context of Islamic History. As we positioned light on Islamic History and found that Islam as Religion ensure contentment, serenity and affluence for all human being including Muslim or non-Muslim. In Islam, benevolence and peace are considered as a basic prop and every Muslim playing its role to promote the harmony and compassion in society by following the golden rules of Islamic History and also playing its role to eliminate violence and injustice from society.

In this study it is observed that word peace and love are the core element that are derived from Islamic History and due to this Muslim considered themselves as ambassador of peace and security not only for Muslims and but also for others human being that are related to others religion as well. In this world by giving all right equally to all human being Islam as religion laydown the foundation peace, progress and prosperity and on the basis of rich history of Islam, almost all Laws has been derived from Islamic Literature and practices of Islamic Rulers.

In this piece of research work it is found that Islam as Religion not only protect the basic rights of all Muslims but also ensuring the basic rights of non-Muslim community as well. By following the verses of Holy Quran “murder of a single innocent person will be considered as the murder of all humanity” and on the basis of said Rule of Quran, Islam as religion protecting the right of all human including children, elder and women ever in the situation of peace and war as well.

**Keywords:** Religion, peace, human being

## **50. Women’s Owned Home-Based Enterprises: A Pathway to Women’s Empowerment in Southern Punjab, Pakistan**

**Shumaila Sadiq<sup>1</sup>, Muhammad Saeed Ahmed<sup>1</sup>, Abdul Saboor<sup>2</sup>**

<sup>1</sup>The Government Sadiq College Women University Bahawalpur

<sup>2</sup>PMAS, Arid Agriculture University Rawalpindi

### **ABSTRACT**

Women’s home-based enterprises not only improve the household livelihood but also a major source to empower the women entrepreneur. The study examined the effectiveness of women owned home based enterprises in women empowerment in Southern Punjab, Pakistan. Likewise, the study aimed at exploring the motivational factors and socio-economic barriers to the women entrepreneurs. For this purpose, 500 women entrepreneurs were interviewed from four tehsils of three districts in Southern Punjab. The study used multistage sampling technique to collect the information from women entrepreneurs. The research endeavor employed quantitative method supported by qualitative data. The study found that the major motivational factor was the income followed by the job satisfaction while most common barriers to women entrepreneurs were the social norms, children of age less than 3 years, lack of finance, price discrimination and lack of space. The frequency estimates of Multidimensional Women Empowerment Index exhibited that DG Khan region was the most deprived region in women empowerment while in other regions the level of women empowerment was more or less same. The regression results showed that personnel income of the women entrepreneur and their age were the most important determinants of women empowerment in these regions. The analysis also showed that the women fetching their income from beauty parlors were the most empowered in all regions of Southern Punjab. The study reveals the better potential in women owned home based enterprises as a source of economic activity and towards women empowerment.

**Keywords:** Women Empowerment, Home Based Business, Women Entrepreneur, Multidimensional Index, Motivational Factors, Barriers to Women Entrepreneur, Multiple Regression Analysis

## **51.Determinants of Female Labor Force Participation: A Case of PDHS 2017-18**

**Dr Sara Noreen**

Government Sadiq College Women University, Bahawalpur

### **ABSTRACT**

Female labor force participation plays an important role in the socio-economic development of Pakistan. This rate is very low in Pakistan as not much importance was given to the development of female human capital. The present study has investigated the socio-economic determinants of Female Labor Force Participation in Pakistan by extracting data from Pakistan Demographic Health Survey (PDHS) 2017-18. The dependent variable was female labor force participation and the independent variables are age of woman, husband age, education of woman, education of husband/partner's, age of household head, sex of house hold head, wealth index, currently residing with husband/partner's, number of living children, number of household members, ownership of assets and region. The results of binary logistic regression have shown that age of woman and education of the woman was positively related with female labor force participation. The education of husband was negatively related with female labor force participation. It was suggested that there must be different awareness programs and seminar and incentives for working women.

**Keywords:** Female Labor Force Participation, age of woman, husband age, education of woman, sex of house hold head.

## **52.Effect of salt stress on morpho-anatomy and physiology of *Cyperus giganteus* (Family Cyperaceae)**

**Asma Hanif**

The Government Sadiq College Women University, Bahawalpur.

### **ABSTRACT**

Salinity is devastating problem all over the world. Accumulation of  $\text{Na}^+$  mostly takes place in vacuole. But some time high levels of salt such as NaCl in soil is very dangerous and cause cytotoxicity in plants. An experiment is conducted to evaluate the effect of NaCl on morpho-anatomy and physiology of *Cyperus giganteus*. Structural characteristics like root and shoot development, dermal, parenchymatous, sclerenchymatous and vascular tissue in root, stem and leaf, and functional characteristics like ionic contents are studied during the investigation. The results showed that salinity affected growth of plant such as leaf number and leaf area which is reduced by increasing salt concentration. Bract number per plant and bract area also decreased. Ionic contents such as sodium, potassium, calcium and plant anatomy also affected.



**Keywords:** salinity, salt stress, morpho-anatomy, Cyperus giganteus

### **53. Statistical Analysis of Covid-19 using texture Analysis**

**Mehrun Nisa<sup>1</sup>, M. Saeed Ahmad<sup>1</sup>**

<sup>1</sup>The Government Sadiq College Women University Bahawalpur, Pakistan.

#### **ABSTRACT**

One of the most challenging tasks throughout the world is to identify covid-19 infection at early stage and producing a reasonable solution to handle it like other viral infections. The objective of this paper is to explore the severity of covid infection through texture analysis. HCRT images can provide meaningful information about size, shape, positions, and density of different lesions but it is completely unable to extract texture information from the grey images due to its heterogeneous structure of tissues by naked eye. Experiments were performed with covid infected data and categorized them in different classes (based on their severity level), after that these groups are correlated with normal case using Haralick texture parameters. The image's pixel and their spatial relationship are extracted out through Grey level co-occurrence matrix (GLCM). Different statistical approaches PCA, LDA and NDA were used to manipulate data and confusion matrices was designed to finalized results. The sensitivity specificity and accuracy of the system was 96.5%, 97.2% and 98% respectively. Texture analysis of HCRT Covid infected images may helpful in identification, characterization, diagnosis and overall act as examining or screening tool throughout each stage of infection. Which will be first step for recovery.

**Keywords:** Texture analysis, Covid-19, Ground glass opacity, Co-occurrence matrix, PCA, LDA, NDA

### **54. Corona's Situation in the Ecological Context**

**Dr Saira Irshad**

Lecturer Urdu, Government Sadiq College Women University Bahawalpur

#### **ABSTRACT**

Environmental studies are primarily about eco-friendly discourse. There are many creatures in this world but man has taken unfair advantage of being noblest of creature, the appearance of nature changed environmental studies reject human centralization Environmental studies reject "human centralization". The main reason for this is that nature rejects man only in terms of environment. That is why after a while, in one way or another, nature finally takes revenge on man in terms of the environment.

In the case of epidemics, diseases, disasters and famines, environmental impacts continue to plague mankind- Man seems to have suffered the consequences of the seemingly competitive atmosphere he created with nature in his journey of development.

The situation in Corona poses the greatest threat to human life in the modern environment. The greatest threat to the environment was human inventions, nature has returned to its vengeance-Given the Corona situation, we now need to better understand the environment and maintain it in its original form.

**Keywords:** Corona, Ecology, Environment, vengeance-Given

### **55.Comparative studies of transport properties of few atoms separately doped graphene quantum dots by non-covalently adsorbing 4, 4'-(ethane-1, 2-diyl) dibenzenethiol molecule**

**Ambreen kalsoom<sup>1</sup>, Misbah Mirza<sup>2</sup>,**

<sup>1</sup>The Government Sadiq College Women University Bahawalpur, Pakistan.

<sup>2</sup>Department of Physics, The Women University Multan, Pakistan.

#### **ABSTRACT**

Transport properties of few atoms doped graphene quantum dots (GQDs), adsorbed by 4,4'-(ethane-1,2-diyl) dibenzenethiol molecule via a non-covalent bond was theoretically investigated. In this study, graphene quantum dots is separately doped with nitrogen (N-GQDs), boron (B-GQDs) as well as co-doping of nitrogen and boron (N-B-GQDs) using a tight-binding model combined with a Non-equilibrium Green's functions (NEGF). Then, an organic molecule 4, 4'-(ethane-1, 2-diyl) dibenzenethiol molecule is adsorbed on the surface of these doped graphene quantum dots. The results show that doped graphene quantum dots by adsorption of 4,4'-(ethane-1,2-diyl) dibenzenethiol molecule have different density of states (DOS), transmission Coefficient (TE), and current-voltage characteristics. In particular, the current strength of the (B-GQDs) @ 4,4-(ethane-1,2-diyl) dibenzenethiole molecule is the largest of the three doped graphene quantum dots and shows a high degree of hybridization between B-GQDs and 4,4-(ethane-1,2-diyl) dibenzenethiole molecule, which makes the transport of charges by this system easier. The results shown may be due to sensitivity developed by doping and co-doping of nitrogen, boron, nitrogen-boron separately with carbon atom in GQDs as well as hybridization between doped GQDs and 4, 4'-(ethane-1, 2-diyl) dibenzenethiol molecule. Our findings may provide useful understanding for experimentally developing the efficient electronic devices.

**Keyword:** Doped graphene quantum dots; Transport properties; Non-equilibrium's Green function

### **56.Artificial Intelligence Application and Significance in Corporate Business and Financial Management**

**Rukhsana Rasheed<sup>1</sup>, Rimsha Farooq<sup>2</sup>, Muhammad Haider<sup>2</sup>**

<sup>1</sup>The Govt. Sadiq College Women University, Bahawalpur

<sup>2</sup>National College of Business Administration & Economics, Multan Sub Campus

## **ABSTRACT**

Advancement of technological progress in business era emerged the issue of information overload which if handled expertly alter it in an opportunity for decision making process. Artificial intelligence (AI) offers a less cost, more accurate and faster assessment of potential customers on the basis of wide variety of factors which leads to a well-informed and data backed decision. All aspects of financial managements and corporate sectors such as planning, budgeting, decision making, policy analysis and controlling have been highly influenced by the application of artificial intelligence. This paper attempts to explore many signs of progress enabled by Artificial Intelligence (AI) in financial and corporate business management. This study has also amid to identify the benefits and cons of AI applications in social life. The executives and employees of financial institutions, banks and corporate organizations that use AI in their business operations were respondents of this research. Data collections was carried through emails, customizable chatbots, live chat software's and automated helpers of top ten online companies for making behavioral analysis. Similarly, relevant business messenger of various banking and financial institutions located in Lahore and Karachi cities were also contacted to gather required information. A systematic content analysis approach has been used to demonstrate the developmental phases of AI and relevant literature. A comparative analysis of both intelligences has also been carried out to address the common belief that AI will substitute human capital in whole or in part. Four distinct organizational maturity clusters i.e. Pioneers, Investigators, Experimenters, and Passives have been developed on basis of survey results. Data analysis showed that AI also proved to be very pragmatic in enterprises of financial management for identifying customer's past behavior, maintaining accounts, conducting financial analysis, forecasting business portfolio and establishing well-organized networks to support the marketing activities and field formations. The study analysis demonstrated that 80% senior business executives were of view that AI boost productivity and creates new business avenues and 38% of businesses are using AI technologies in workplace whereas 88% of those that do not use AI are also supposed to rely on AI based technologies indirectly. The analysis revealed that 20% major retailers applied AI in customizing brand awareness and 20% workers engaged in automated assistance execute AI technologies to make decisions and get work done. The results of organizational AI maturity clustering demonstrated that 19% pioneer organizations found that they have understand and adopted AI techniques according to organization requirements, 32% investigator organizations have understood AI but nor deploying it beyond the pilot stage, 13% experimental organizations were adopting or piloting AI without understanding whereas 36% passive organizations were neither adopting nor understanding AI in their business operations. It is evidenced that AI has profound effects on financial industry to streamline its credit decisions from quantitative trading to financial risk management and fraud detection. This study also discovered that the widespread use of AI in financial and corporate industry have raised a number of ethical, moral and legal challenges that are yet to be addressed. Although AI is gaining popularity day by day and it is believed that AI will improve work performance beyond human standards but it could not replace human resources fully.

**Keywords:** Artificial Intelligence (AI), Financial Institutions (FIs), Customer Relationship, Machine Learning, Chatbot.

## **57. The situation of COVID-19 and Urdu Poets' humanist Behavior**

**Dr. Asasma Rani**

The Govt. Sadiq College women University Bahawalpur

### **ABSTRACT**

The pandemic situation of the year 2020 affected not only a specific region but the whole world. All humans got affected by this pandemic without any classification of the bourgeoisie and the proletariat. This epidemic had affected the human being economically, socially and psychologically in such a way that they were compelled to think about their future with apprehensions. A literary person or a poet who is the most sensitive person of any society is affected by every kind of extra-ordinary circumstances and makes it subject of his creativities. Usually, it is expected Humanist moralities from his poetry.

Anyways, Urdu Poets also got affected by the COVID-19 and posed it in their writings consciously or unconsciously or in deliberately. In this research paper it will be the analytical study of the poetry created in the situation of COVID-19 so that the poets' preferences and their psychological conditions come forth/are revealed to make this evident that in this situation whether they have propelled optimism or pessimism or they have presented the proof of Humanism posing optimistic and constructive values through their poetry.

**Keywords:** COVID-19, Urdu Poets, Humanist Behavior, Pandemic, Humanism

## **58. Anylics the Role of Islamic Education and Curriculum of Pakistan to Build Peace Full Society**

**Dr. Sobia Khan**

The Govt. Sadiq College Women University, Bahawalpur

### **ABSTRACT**

Promoting a culture of peace and harmony through Islamic education and Curriculum is of the core mission of educational policy of Pakistan. The first revelation of the Quran is about reading and knowledge though builds up good character and peaceful society. There are three main kinds of values: of Islamic education (a) akhlāq, which refers to the duties and responsibilities set out in the shari'ah and in Islamic teaching generally; (b) adab, which refers to the manners associated with good breeding; and (c) the qualities of character possessed by a good Muslim, following the example of the Prophet Muhammad. This Paper studies an under-Research area curriculum and educational policy role in peace building. Ideology of Pakistan Cleary define to

promote peace and Religious harmony, unity, the national curriculum uses region (Islam) as a key boundary between Muslim and other faith communities Christen, Hindus, sik, Judaism. Pakistan is one of most important and popular atomic country of Islamic world. It's, necessary to create political economic stability. This realization creates an atmosphere of trust and cooperation in the society. And we fulfill all achievement through to promote religious values and adopt good education strategic policy to build strong unity and peace full nation.

**Keywords:** Islamic Education, Curriculum, Society, Religion, Education policy

## **59. Gender equality in Islam (Research studies in a contemporary context)**

**Shazia Ashiq<sup>1</sup>, Dr.Abdul Khaliq<sup>2</sup>**

<sup>1</sup>Lecturer, Islamic Studies, Govt, Sadiq College Women University, Bahawalpur,

<sup>2</sup>Assistant Professor, Govt. Technology College Bahawalpur

### **ABSTRACT**

In all the religions and philosophies and beliefs of the world, man has been diagnosed as the first-class creature, there is no point out or factor of gender discrimination. Especially in Islam, all human beings have been declared the descendants of Adam (peace be upon him) and the noblest of creatures. In the fundamental teachings of Islam, pride, caste, color, race, language, region and gender have been barred from the widespread of virtue. *” إِنَّ أَكْرَمَكُمْ عِنْدَ اللَّهِ أَتْقَىكُمْ ”* From such verses, solely piety and piety have been declared as the very best standard. Although the use of this idiom has quite a few essential implications, for example, if one wheel of a car breaks down, the car will no longer be capable to go ahead till that defect is eliminated and the wheel is constant like the different quality wheel. Although some of the important points of this instance do now not practice to the relationship between men and women in society, it does supply a concept of the significance of equality and equality. Men and women are virtually sexually different, however as human beings, there is no distinction between the two. As a human being, a girl has the identical wishes as a man. A girl additionally desires food, desires clothes, wishes a residence and above all, a female additionally has self-respect, self-esteem, and identity. Therefore, for a peaceable society, women and men residing in society ought to have equal rights. These rights cowl employment, social life, instructional facilities, and fitness amenities as nicely as politics, home responsibilities, and leisure activities. Since our social values are linked to non-secular beliefs, it is vital to give an explanation for to the target market that men and women are equal as human beings, citing Quranic verses, hadiths, and well-known female in Islamic records to show the repute of women. Women are now not barred from doing commercial enterprise or collaborating in social things to do in Islam. Does Islam inform us that a lady has to bake bread, wash garments and easy the residence all her lifestyles and if men and women assist every different in these matters, then Allah will be displeased? There is a want for men to make a tremendous alternate in their attitudes and this alternate is feasible solely when men take care of their rights. If men exchange their behavior, women will no longer have to

spend time and power struggle for their rights. This trade is feasible only when men soften and trade their attitudes. In this article, we discuss about gender discrimination and the equality of men and women, maintaining in idea the teachings of Islam.

**Keywords:** Gender Equality, Islam, Women, Man, Rights, Behavior

## **60. Digital documentation of Bahawalpur flora**

**Amber Raza<sup>1</sup>, Mehwish Munir<sup>1</sup>, Rabia Raza<sup>2</sup>**

<sup>1</sup>The Government Sadiq College Women University, Bahawalpur

<sup>2</sup>The Islamia University of Bahawalpur

### **ABSTRACT**

A survey of Bahawalpur was done during 2019-2020 to digitally categorized the wild flora. Purpose of this study was establishing the digital herbarium for the local students of Botany. Plants were collected, preserved to maintain herbarium and were identified by the experts. During the survey pictures of plants were captured in the field to maintain the digital record. Herbarium was submitted to the Department of Botany, The Government Sadiq College Women University, Bahawalpur. Digital herbarium is intended to be made available to the local students through websites. Plants included herbs, shrubs and trees.

**Keywords:** Digital documentation, Bahawalpur, flora, digital herbarium

## **61. Preliminary phytochemical screening and comparison of different extracts of Cappariaceae family**

**N.Dilbar, M.Jabbar**

### **ABSTRACT**

Medicinal plants are considered to be the richest source of drug discovery. The main cause of medicinal properties of plants is the presence of bioactive compounds in them. Phytochemical screening is the valuable process that detects bioactive compounds (secondary metabolites) in plants.

The present study was carried out to determine phytochemical profile and ethnobotanical importance of Cappariaceae species. (*Capparis spinosa* and *Dipterygium glaucum*). The selection of plants was made on basis of traditional knowledge of their usage in ayurvedic medicines. Different type of solvents (ethanol, methanol, chloroform, benzene and petroleum ether) were used to make extracts of dry and fresh plants. Phytochemical screening was made by using various standard techniques. Results reveal the presence of large range of bioactive compounds i.e alkaloids, saponins, flavonoids, terpenoids, glycosides, phenols and steroids. Methanol, petroleum ether and chloroform extracts showed high extractability of bioactive

compounds. The results obtained ensure these plants a reliable source of pharmacological industry and can be used in making of various biological friendly drugs.

**Keywords:** Bioactive compounds, Capparidaceae, Phytochemical screening, Secondary metabolites.

## **62. An Analysis of the rights of minorities in the context of Darul Islam and Darul Ahad (Religious, social and political rights)**

**Dr. Yasmin Nazir<sup>1</sup>, Shazia Ashiq<sup>1</sup>**

<sup>1</sup>The Govt. Sadiq College Women University Bahawalpur

### **ABSTRACT**

The era of the prophet (PBUH) is the most glorious period inside the world, due to the fact the final of the prophets and messengers, Muhammad (PBUH), grew to become gift on the earth at that time. It's a long way right to be recognized as Sayyid al-Adwar, Sayyid al-Ahud, it is an honor for this age to have a heavenly belief and faith like Islam completed and entire in that age, and to present letters and signs and symptoms to clear up all the troubles that will get up until the day of resurrection. Doane-even as many new troubles have arisen and are rising these days, there may also be additionally the difficulty of figuring out "Dar-ul-islam and Dar-ul-ahd", so the dedication of many hints is suspended on this determination. Due to the reality the scenario is peculiar now, governments are now not worn-out of making a tune the songs of "freedom", "equality" and "democracy" on the one hand, and on the other hand Muslims and Islam are being discriminated toward on all aspects. Below the circumstances, how can Dar-ul-Islam and Dar-ul-Ahd is properly suited in this article, we will describe the rights of minorities in the context of Dar-ul-Islam and Dar-ul-Ahd?

First of all, despite the fact that many human rights actions are based totally on religion, explicitly linking human rights to religion invites the expulsion and persecution of minority businesses. To shield the rights of those minorities, we should paintings to keep faith cut loose human rights. It is no mystery that faith is often the most important factor of human rights, as Larry cox currently showed in his speech at international rights. But do both religion and human rights really want every difference as he advised? Even though the finest human rights actions in history seem to be inspired by way of the religious ideology of justice and equality, linking faith and human rights collectively is extremely difficult for some human beings, especially women, sexual and spiritual minorities. Despite the fact that faith-based efforts are a prime force in undermining oppressive political regimes, ladies' moves inside the Indian and Pakistani contexts belong to an earthly platform and aren't has considered it essential to draw a clear line among faith and kingdom affairs. Within the context of Pakistan, wherein Islam is the authentic faith, many legal guidelines were introduced on non-secular grounds underneath Zia-ul-Haq's government. Even in Pakistan; little development has been made at the rights of sexual minorities. The combination of faith and state has been extremely damaging to religious minority

organizations in both India and Pakistan. Within the Indian and Pakistani context, denying an earthly view of human rights can be very risky. The usage of faith as a dynamic force in multi-religious societies method the exclusion of minority spiritual communities from society. Besides, each faith has to have something against human rights. Even the most modern interpretations of the arena's essential religions come to a halt with a few rights, in particular approximately intercourse and sexuality. Consequently, at the same time as its miles tempting for religions to apply points that emphasize human rights to their gain, the chance of doing so is simply as notable. But, we ought to no longer underestimate the significance of faith as a motivating pressure for human rights, nor must we deprive humans of the right to explicit their religious ideals, supplied that their expression is shared with others. Do not deprive them of their rights. But, there's a massive distinction between being for my part motivated by using religion, that's a powerful motivation, and associating a motion with faith.

Keywords: Rights, Minorities, Indo-Pak, Darul Islam, Darul Ahad Religious, Political

### **63. Disembodiment of Quantum Properties from Particles through Weak-Measurements**

**Sumaira Nawaz<sup>1</sup>, Dr. Rashid Ahmad<sup>1</sup>, Dr. Sajid Khan<sup>1</sup>**

<sup>1</sup>Kohat University of Science and Technology, Kohat, Pakistan

#### **ABSTRACT**

Erwin Schrödinger proposed a thought experiment to explain superposition principle. Superposition principle is one of the basic principles of quantum mechanics. The thought experiment is known as Schrödinger's Cat, in which a living cat is in superposition of both alive and dead. After measurement the system (the cat) falls into one of the many possible states. In 2013, Yakir Aharonov and his co-writers imagined a trial proposing that a particle can be isolated from its property. They considered the impact a "Quantum Cheshire Cat" that has been uncertainly confirmed in the succeeding year. The name Quantum Cheshire Cat is propelled from a imaginative character of the Cheshire Cat in "Alice's Adventures in Wonderland" a novel composed by Lewis Carroll where the smile of a cat is found without a cat. A significant question emerges here. When the smile of the Cheshire Cat is isolated, is there any relationship despite everything left between the smile and the cat? To respond to this question, we propose a thought experiment wherein Quantum Cheshire Cat is likewise a Schrödinger's Cat. In this work, we investigate that when a particle is isolated from its property, there is still some quantum correlation left between property and particle. We likewise investigate the separation of more than one quantum properties from the particle simultaneously. We also trace the charge of Quantum Cheshire Cat and through Weak measurements measure that charge goes along with the spin of electron. Furthermore, the wave and particle nature separation will also be investigated, to check if the isolation between them is possible.

**Keywords:** Quantum, Weak-Measurements, Superposition Principle



## **64. Dynamics of bipartite entanglement under an environment characterized by Dzyaloshinskii-Moriya interaction**

**Muhammad Salman Khan, Abdullah Yar, Salman Khan Safi**

### **ABSTRACT**

We study entanglement dynamics of an open hybrid bipartite qubit-qutrit system. We will investigate the environmental effects on our system locally through Dzyaloshinskii-Moriya (DM) interaction, which is a relativistic effect of spin-orbit coupling. Dzyaloshinskii-Moriya (DM) interaction plays dominant role in ferromagnetic and antiferromagnetic Ising and Heisenberg spin chains. In this study, we will specifically solve a model in which a one particle DM environment locally coupled with the marginal qubit of the system, keeping the qutrit isolated. Using the approach of density matrix formalism, we will use one parameter as well as two parameters different classes of entangled systems as our initial states and will investigate the dynamics of entanglement of the evolved states through negativity.

**Keywords:** Bipartite Entanglement, Dzyaloshinskii-Moriya Interaction, Entanglement Dynamics, Spin-Orbit Coupling

## **65. Study of Common Intestinal Parasitic Fauna in Patients Visiting Khyber Teaching Hospital, Peshawar**

**Nayab Khattak**

Kohat University of Science and Technology

### **ABSTRACT**

Intestinal parasitic infections are endemic worldwide and have been described as constituting the greatest single worldwide cause of illness and disease. Poverty, illiteracy, poor hygiene, lack of access to potable water and hot and humid tropical climate are the factors associated with intestinal parasitic infections. To find out prevalence of common intestinal parasites in patients of KTH Peshawar. To find out variation in the prevalence of infection, with the changes of seasons. To find out occurrence among different common intestinal parasites fauna. The study aimed to estimate prevalence and identify factors associated with intestinal parasitic infections among 1 to 16 years old children visiting Khyber teaching hospital Peshawar. A total of 104 stool samples were included and examined in this study, 100 samples were tested positive for various intestinal parasites. The stool samples were mixed with 2% formalin solution and transported to laboratory for investigations. The color, consistency and nature of stool samples were recorded. Further all the samples were subjected for examining the presence of parasitic worms by wet mount microscopy. As a result, in stool samples, yellow color dominated followed by brown, black etc. the stool consistency was observed and maximum were recorded as solid.

The maximum numbers of stool samples were enrolled from Khyber teaching hospital Peshawar. After thorough microscopic examinations, the common parasites identified are *Ascaris lumbricoides* (50.96%), *Ancylostoma duodenale* (16.34%), *Entamoeba histolytica* (12.50%) *Trichuris trichiura* (8.65%) and *Giardia lamblia* (7.68%). In the light of the study result it is concluded that there is a high prevalence of parasitic infection in the community and an intervention strategy including health education program should be designed and implemented to control parasitic infections.

**Keywords:** Intestinal, parasitic, infections, health education program, hospital, Khyber

## **66. Synthesis and Characterization of Fluorescent Epoxy-Polymers from Triphenylamine-linked Bis azomethine(s)**

**Hufsa Rani<sup>1</sup>, Naila Khalid<sup>1</sup>, Ahtaram Bibi<sup>1</sup>**

<sup>1</sup>Kohat University of Science and Technology, Kohat, Pakistan

### **ABSTRACT**

A series of triphenylamine (TPA) linked bis azomethine(s) were synthesized by condensation of 4,4'-diformyl triphenylamine with various aromatic/aliphatic amines. The characterization of the TPA based monomers was carried out by Fourier transform infrared (FTIR) and nuclear magnetic resonance (<sup>1</sup>H-NMR) spectral analysis. Hydroxy substituted TPA-azomethine were used as curing agent for epoxy resin diglycidyl ether of bisphenol-A (DGEBA, DER-332) to prepare a series of epoxy-polymers. The synthesized polymers were characterized by FTIR spectral analysis. The molecular weight distribution analysis of the polymers was conducted by Gel permeation (GPC) chromatography. The photophysical properties of the polymers were evaluated by the UV-vis and photoluminescence (PL) spectral analysis. All the polymers emitted green light with excellent quantum efficiency. Thermal analysis of the polymers was assessed by the Thermogravimetric analysis (TGA), showed thermal stability upto 350 °C. The green light emission and excellent thermal stability of the synthesized polymers suggest their use as fluorescent coatings.

**Keywords:** Fluorescent Epoxy-Polymers, Triphenylamine-linked, Bis azomethine, Thermogravimetric analysis, TGA

## **67. Determining Thickness Dependent Critical and Blocking Temperatures for Bi-layer Magnetic Systems using Atomistic Simulation**

**Siraj U Haq<sup>1</sup>, Omar Usman Khan<sup>1</sup>, Muhammad Yaqoob Khan<sup>1</sup>**

<sup>1</sup>Kohat University of Science & Technology, Kohat, Pakistan

### **ABSTRACT**

Computer simulation and modeling techniques are approached for investigating the magnetic properties of the magnetic materials at nanoscale. The Curie temperature of ferromagnetic (FM) materials (Ni, Co) and their variation with thickness and temperature has been studied by atomistic simulation package VAMPIRE. Temperature dependent magnetization is also obtained for these materials using Curie-Bloch equation. For simulations, LLG-Heun method was implemented to study different magnetic behaviour. A number of test simulations are made for analyzing the effect of various parameters on the magnetic properties associated with input and material files. Furthermore, a new constrained Monte Carlo simulation method is developed for investigating the temperature dependent anisotropies measurements of Ni thin films for the first time as a test simulation. Moreover, we used Malozemoff model for the temperature and thickness dependent magnetic anisotropies calculations from the experimentally reported exchange bias values. Blocking temperatures could be extracted from this model which verifies our results by comparing them with the experimentally reported ones. In last, thickness and concentration dependent Néel temperatures antiferromagnetic (AFM) thin films ( $\text{Ni}_x\text{Mn}_{100-x}$ ) are also simulated using VAMPIRE.

**Keywords:** Blocking Temperatures, Bi-layer Magnetic Systems, Atomistic Simulation, VAMPIRE

## **68. Preparation, Characterization and Simulation of Nickel Ferrite ( $\text{NiFe}_2\text{O}_4$ ) Nano-Particles to Investigate its Heating Efficiency for Hyperthermia Treatment of Cancer**

**Naqeeb Ahmad Khan<sup>1</sup>, Omar Usman Khan<sup>2</sup>, Muhammad Yaqoob Khan<sup>1</sup>**

<sup>1</sup>Kohat University of Science & Technology, Kohat, Pakistan

<sup>2</sup>National University of Computer and Emerging Sciences, Peshawar, Pakistan

### **ABSTRACT**

Many new promising therapeutic and diagnostic methods in medical science use magnetic nanoparticles (MNPs). Drug targeting, tumor detection and magnetic hyperthermia treatment are the most common fields of interest where already clinical trials are being performed. Nickel ferrite ( $\text{NiFe}_2\text{O}_4$ ) nanoparticles have received much attention for their potential applications in such fields. The  $\text{NiFe}_2\text{O}_4$  nanoparticles have been synthesized by co-precipitation method. The average particle size obtained from XRD data is found to be 15 nm. The crystal structure of the prepared  $\text{NiFe}_2\text{O}_4$  four samples annealed at different temperatures is found to be Face Centered Cubic (FCC) with lattice constant  $8.34 \text{ \AA}$  which is in good agreement with the reported values.

The magnetic properties (magnetization and coercivity) of the samples were obtained from temperature dependent hysteresis loops using Vibrating Sample Magnetometer (VSM). The heating efficiency of the prepared MNPs was measured by applying high frequency alternating magnetic field of different frequencies and different field amplitudes which revealed that the size

of the MNPs was successfully brought into the value that could produce heat in the therapeutic range (42-46 °C). From these measurements Specific Absorption Rate (SAR) defined as heat power dissipated by the MNPs per unit mass was obtained. A mathematical model utilizing heat power generated by the MNPs was constructed to provide information about the temperature rise within the tumor as a function of radius of the tumor and time of treatment.

**Keywords:** Preparation, Characterization, Simulation of Nickel Ferrite (NiFe<sub>2</sub>O<sub>4</sub>), Nano-Particles, Heating Efficiency, Hyperthermia Treatment, Cancer

## 69. Random, Biased and Unbiased Quantum Walks

Safia Bibi<sup>1</sup>, Dr. Rashid Ahmad<sup>1</sup>, Dr. Sajid Khan<sup>1</sup>

<sup>1</sup>Kohat University of Science & Technology, Kohat, Pakistan

### ABSTRACT

In a standard "Discrete-time Quantum Walk (DTQW)" the evolution of a walker is determined by two operators; "coin" and "shift". The position of a walker is shifted to a unit step-size either to left or right by using the conditional "shift operator". Whereas the "coin operator" tells us about the motion's direction. In this thesis, we generalized the scenario by choosing the step-size randomly at each step and called this quantum walk "a Discrete-time Random Step Quantum Walk (DTRSQW)". The probability distribution is completely randomized whenever the walker follows the DTRSQW. We have also analyzed two more types of quantum walks, the "Discrete-time Un-biased Quantum Walk (DTUBQW)", and the "Discrete-time Biased Quantum Walk (DTBQW)". In the former type, the step-size is kept other than unit size but the left and right shifts are same to each other. Where as in DTBQW, the step-size has been selected randomly and also the left and right shifts are different to each other. We observed that the probability distribution in DTUBQW follows a certain rule. We study the Shannon entropy associated to all the three types of quantum walk. As the lower entropy indicates lower uncertainty in the system, it is observed that discrete time random step quantum walk with the position-dependent coin has smaller entropy for most values of the rotation angle as compared to the case of the position-independent coin. The DTRSQW spreads faster as its standard deviation is higher than DTQW. On the other hand, the standard deviation of DTUBQW shows sawtooth behavior with faster spread than DTQW for some specific values of rotation angles and the number of steps.

**Keywords:** Random Quantum, Biased Quantum, Unbiased Quantum Walks, Discrete-time Quantum Walk, DTQW

## 70. A Simulation Study of Structural, Elastic and Optoelectronic Properties of Fluoroperovskite (Ingef<sub>3</sub>, Inpbf<sub>3</sub>, Inbaf<sub>3</sub>) Compounds

Komal Mehmood

## ABSTRACT

Perovskite belongs to the earth's most abundant mineral group having general formula  $ABX_3$ . It consists of corner sharing octahedra of X anions with B cations in their center, and A cations occupying the 12-fold coordinated site located in the middle of the cube constituted by eight octahedra. Fluoroperovskite is the sub group of perovskite family where X comes from halogen group. These perovskites have wide range of applications in various fields of technology due to their interesting cubic structure and physical properties. Inbased perovskites are rarely studied, therefore investigation of their physical properties may lead to interesting properties and applications. In present work we have performed the ab initio study of In-based fluoroperovskites in order to take advantages of their properties. Here we have used the full-potential linear augmented plane wave (FP-LAPW) method within the generalized gradient approximation (GGA+U). By using WIEN2k code based on density functional theory, we have found the lattice constants of compounds  $InGeF_3$ ,  $InPbF_3$  and  $InBaF_3$  which are 4.4935 Å, 4.8610 Å, 4.95 Å respectively and structural, electronic and optical properties are studied. These compounds have been found to be mechanically stable. All the compounds have direct band gaps, having values about 1.5 eV, 2.2 eV, 3.8 eV for  $InGeF_3$ ,  $InPbF_3$  and  $InBaF_3$  respectively. In optical properties, calculations of the optical spectra such as the real and imaginary parts of the dielectric function, optical reflectivity, absorption coefficient, optical conductivity, refractive index and extinction coefficients are performed for the energy range of 0 to 30 eV.

**Keywords:** Simulation, Structural, Elastic, Optoelectronic Properties, Fluoroperovskite ( $InGeF_3$ ,  $InPbF_3$ ,  $InBaF_3$ ) COMP UNDS

### 71.A Comparative study of electronic and thermoelectric properties of bulk GaN and its Monolayer using DFT technique

Imran Ullah<sup>1</sup>, Altaf Ur Rahman<sup>2</sup>, Sajid khan<sup>1</sup>

<sup>1</sup>Kohat University of Science and Technology, Kohat, Pakistan

<sup>2</sup>Riphah International University, Lahore, Pakistan

## ABSTRACT

Gallium nitride (GaN) is one of the extensively studied semiconductors. GaN belongs to group III-Nitrides and is a highly thermally stable compound that can operate in harsh environments. GaN is a promising semiconductor material that exhibits many outstanding physical and chemical properties in high-temperature optoelectronics and high-power, high-frequency devices. Because of many recent applications of these nanocrystals, most of their relevant applied properties are unknown and needed to be investigated experimentally and theoretically. Using first-principles calculations based on density functional theory (DFT) with generalized gradient approximation (GGA), the electronic and thermoelectric properties of bulk GaN is calculated. The electronic structure calculations show that bulk-GaN is a semiconductor with a

direct bandgap of 1.64 eV at  $\Gamma - \Gamma$  (as shown below). The electronic transport properties of bulk GaN is calculated by Boltzmann equations. Thermometric properties are computed as a function of temperature and charge carrier concentrations  $10^{18}$ – $10^{20}$  cm<sup>-3</sup>. The predicted value of the figure of merit ZT is as high as 0.98 at 400.

**Keywords:** Electronic Properties, Thermoelectric Properties, Bulk GaN, Monolayer, DFT

## **72. Electrical properties of combined alkaline earth and transition metal fluorides**

**Danish Rehman<sup>1</sup>, Dr. Sajjad Qureshi<sup>1</sup>**

<sup>1</sup>Kohat University of Science and Technology, Kohat, Pakistan

### **ABSTRACT**

Fluorides of alkaline earth metal and transition metal fluoride, with common crystal lattice, were used as precursors to attain the product. Solid state reaction was carried out for 1%, 3%, 5% and 7% percentage compositions. The product obtained was examined using X-ray spectroscopy, infrared spectroscopy and UV spectroscopy. Using Kubelka-Munk function, band gap was found to be in the range of 4.8-5.8eV for various percentage compositions. Cyclic voltammetry was carried out which indicated well-defined anodic and cathodic peaks for all the synthesized samples, corresponding to the redox reaction. The peak to peak values of the potential for sample were found to increase at high concentration. Electrochemical impedance spectroscopy (EIS) studies indicated resistive behaviour of the sample at higher frequencies while at other frequencies capacitive behaviour is favoured. Among the various synthesized doped series, samples with the lowest doping contents appeared to be the best composition both in terms of the initial discharge capacity as well as the rate capability. These results suggest that the synthesized NPs may be potentially exploited as cathode materials in batteries.

**Keywords:** Electrical properties, Combined Alkaline, Earth Metal, Mtransition Metal, Fluorides

## **73. First principle calculations of structural, mechanical, electronic and optical properties of Mercury based Fluoroperovskites HgXF<sub>3</sub> (X= Bi, Sc, Y, and I)**

**M. Junaid<sup>1</sup>, Muhammad Sajjad<sup>1</sup>, Muhammad Yaqoob Khan<sup>1</sup>**

<sup>1</sup>Kohat University of Science & Technology, Kohat, Pakistan

### **ABSTRACT**

Ab initio calculations of Mercury based fluoroperovskite HgXF<sub>3</sub> (X = Bi, Sc, Y, and I) compounds are performed. We employed full-potential linearized augmented plane wave (FP-LAPW) method within the framework of the density functional theory (DFT) with the generalized gradient approximation (GGA) and Trans-Blaha modified Becke–Johnson (TB-mBJ)

potential. The ground state properties of these compounds such as equilibrium lattice constant, bulk modulus, ground state energy and bond lengths at equilibrium are found. Mechanical properties i.e. bulk modulus, Shear Modulus, Young's Modulus, Poisson's Ratio, Paugh's Ratio, Anisotropy Factor, Kleinman Factor, Cauchy's Pressure suggest that these compounds are mechanically stable, elastic anisotropic, ductile in nature, and possess mixed ionic and covalent bonding with dominant ionic character. The electronic density of states and electronic band structures illustrate that HgBiF<sub>3</sub> is a direct while HgScF<sub>3</sub> and HgYF<sub>3</sub> are indirect ones. On the other hand, HgIF<sub>3</sub> shows metallic behaviour. The contour maps of electron charge density also reveal that these compounds have mixed ionic and covalent bonding with dominant ionic character. The optical properties are analysed and the origin of some peaks in the spectra are found in the energy range 0-40 eV. Suitable applications such as ultra violet detectors, and photovoltaic cells are suggested for the under-study compounds based on their absorption and reflection properties.

**Keywords:** Structural, Mechanical, Electronic Optical, Mercury, Fluoroperovskites.

#### **74. Ab initio study of Tl-Based heavy fluoroperovskite of TlXF<sub>3</sub> (X= Zn, Sn, and Mn) compounds**

**Farhat Ullah**

Kohat University of Science and Technology, Kohat, Pakistan

##### **ABSTRACT**

We have performed ab initio investigation of some physical properties of the Tl-based fluoroperovskites TlXF<sub>3</sub> (X = Zn, Mn, and Sn) compounds using the full-potential linearized augmented plane wave (FP-LAPW) method. The investigation of exchange correlation effect is carried out by (GGA+U) approximation. The calculated lattice constant of these compound are found by comparing with known fluoroperovskites TlXF<sub>3</sub>(Mg, Cd). The calculations of the band structure of the studied compounds showed the semiconductor and insulating behavior with direct (X-X) and the indirect (M-M) energy gap. The different optical spectra are calculated from the real and the imaginary parts of the dielectric function and connected to the electronic structure of the compounds. The static refractive index  $n(0)$  is inversely proportional to the energy bandgap of the two compounds. Beneficial optics technology uses are predicted based on the optical spectra.

**Keywords:** Ab initio, Tl-Based, fluoroperovskite, Compounds, Optics

#### **75. Synthesis, Structural, Optical properties and Applications of cerium trifluoride doped zinc oxide (CeF<sub>3</sub>/ZnO) Nanocomposites (NCs)**

**Samia<sup>1</sup>, Muhammad Sajjad<sup>1</sup>**

<sup>1</sup>Kohat University of Science & Technology, Kohat, Pakistan

## ABSTRACT

ZnO doped with cerium trifluoride were synthesized by co-precipitation method. Several concentrations of cerium trifluoride (1%, 3%, 5%, 7% and 9%) were doped into zinc oxide. Different characterization techniques i.e. X-ray Diffraction (XRD), UV-Visible, Fourier transform and infrared spectroscopy (FTIR) were carried out to characterize the synthesized samples. The XRD results showed that the CeF<sub>3</sub> were successfully incorporated into ZnO host and are well crystalline. The FTIR and UV spectra reveals an excellent optical property. The synthesized samples were used as a catalyst to study the catalytic properties.

**Keywords:** Synthesis, Structural, Optical properties, Cerium Trifluoride, Doped Zinc Oxide, Nanocomposites.

## 76. Phytochemical, Antioxidant and Anticancer Activities of Oxalis Acetosella and Bassia Indica

**Sajida Afzal<sup>1</sup>, Aamir Khan<sup>1</sup>, Rabia Nousheen<sup>1</sup>, Ujala Rauf<sup>1</sup>, Naireen Nayab<sup>1</sup>, Muhammad Adnan<sup>1</sup>, Naseeb Ullah<sup>1</sup>, Kalim Ullah<sup>1</sup>**

<sup>1</sup>Kohat University of Science and Technology, Kohat, Pakistan

## ABSTRACT

In the present study, traditionally used plants *Bassia indica* (Amaranthaceae) and *Oxalis acetosella* (Oxalidaceae), were collected from District Karak, Pakistan. Ethanolic, methanolic and aqueous extracts of plants obtained through stirring (extraction technique) were evaluated for antioxidant activity (2, 2- diphenylpicrylhydrazyl), anticancer (Using MTT bioassay) and phytochemical studies (total phenolic and flavonoid contents). Total phenol and flavonoides contents and antioxidant activity were determined spectrophotometrically. Good amount of total phenolic and flavonoides contents were determined in *Bassia indica* while moderate amount in *Oxalis acetosella*. The maximum quantity of flavonoides substances observed in ethanolic extract of *Bassia indica* was (0.90±0.18 mg / ml). Likewise, the ethanolic extract from the *Bassia indica* plant displayed the highest amount of total phenolic content (0.78±0.16 mg / ml), followed by ethanolic and water extract. The highest value of the flavonoid's compounds found in *Oxalis acetosella* ethanolic extract were (1.02±0.02) while the highest value of the phenolic contents found in ethanolic extract were (1.43±0.018), followed by the methanolic extract (1.1±0.78) then aqueous extract (1.01±0.77). The DPPH free radical scavenging activity of ethanolic extract of *Bassia indica* showed highest percentage 64.28% followed by methanolic extract and distilled water, Similarly the antioxidant activity of *Oxalis acetosella* ethanolic extract showed 23.21% scavenging activity compare to methanolic and water extracts. To find out the anticancer activity of selected medicinal plants different cell lines HePG2 (liver cancer), HeLa (cervical cancer) and MCF7 (Brest cancer) cell lines were used, treated with different concentration by using MTT bioassay. The methanolic extract of *Bassia indica* showed high reduction in cell viability among



all extracts 26.22%, ethanolic 42.55% at concentration of 100mg/ml against HepG2 cell line, likewise methanolic extract of *Bassia indica* against HeLa cell lines showed 27.15% cell viability reduction, against MCF7 the aqueous extract showed 23.24% reduction. While all the concentration of *Oxalis acetosella* show no activity against selected cancer cell lines. It is concluded from the study that *Bassia indica* can be used as a source of novel drug in cancer therapy. This study will help the researchers isolate biologically active compounds.

**Keywords:** Phytochemical, Antioxidant, Anticancer Activities, *Oxalis Acetosella*, *Bassia Indica*

## **77. Metal Complexes of Tpa Based Biss Schiff Bases; Synthesis and Characterization**

**Zakia Bibi<sup>1</sup>, Naila Khalid<sup>1</sup>, Ahtaram Bibi<sup>1</sup>**

<sup>1</sup>Kohat University of Science and Technology, Kohat, Pakistan

### **ABSTRACT**

Three new Schiff were synthesized by reaction of aromatic aldehyde and triphenylamine (TPA). The characterization of TPA based ligand was carried out by Fourier transform infrared (FTIR) and nuclear magnetic resonance (NMR) spectral analysis. TPA base ligands were used to prepare series of complexes. The ligand and complexes were isolated from the reaction in the solid form and characterized by conductivity, magnetic moment, TLC, IR, UV-Visible, FTIR spectral analysis. Thermal gravimetric analysis of the complexes showed thermal stability up to 350°C. The Schiff base and its metal complexes have been found to have moderate to strong antibacterial activity.

**Keywords:** Metal Complexes, TPA Based Biss Schiff Bases; Synthesis, Characterization.

## **78. Terahertz Signal Detection via Electromagnetically Induced Transparency in Magnetized Graphene**

**Muhammad Taif Usman, Dr Abdullah Yar, Dr. Zia Uddin**

### **ABSTRACT**

We are writing this paper to study theoretically terahertz signal detection via electromagnetically induced transparency in magnetized graphene. In solving the time-evolution equation for the density matrix of Dirac electrons in magnetized graphene coupled to the infra laser fields, the numerical steady state solutions are attained which reveals that the real and imaginary part of susceptibility are still linear with respect to dispersion and absorption of the graphene system. Further the absorption coefficient for the probe field coupled to  $|1\rangle \leftrightarrow |3\rangle$  is directly proportional to the imaginary part, while the transmission coefficient of the prob field is spontaneously proportional to the imaginary part of susceptibility. In the second part of this thesis, on the 2D

magnetized graphene, we examine the propagation dynamics of the probe field and transmission coefficient of the probe field. We detect that, the transmission spectra of the probe field when terahertz signal radiation is off, only high absorption line appears in the center of the probe transmission spectra. When terahertz signals are on, the original high absorption line is become an obvious transparency window between the two high absorption lines.

**Keywords:** Terahertz Signal Detection, Electromagnetically, Magnetized Grapheme, Time-Evolution Equation, Density Matrix, Dirac Electrons, Magnetized Grapheme

## **79. The Impact of Improved Technology and Land Use Intensity on Agricultural Total Factor Productivity in Pakistan: A Multivariate Cointegration Analysis**

**Hadia Naz<sup>1</sup>, Dr. Dilawar Khan<sup>1</sup>, Dr. Ihtisham ul Haq<sup>1</sup>**  
<sup>1</sup>Kohat University of Science & Technology, Kohat, Pakistan

### **ABSTRACT**

Agriculture is an important sector of Pakistan's economy. It is considered as the backbone of our economic system as it provides raw materials to other sectors of the economy. Increase in agricultural total factor productivity (TFP) is considered essential to fulfill the demand for food and raw materials resulting from population expansion and restricted cultivated land. Improved Agriculture technology and agriculture land use intensity are important factors which can significantly affect the productivity of agricultural sector. However, Pakistan is facing a larger challenge of an increasing population and natural resources are slowly declining, putting major restrictions on the efforts to increase output indicating a great threat to food security. Therefore, it is understood that food security would be a serious challenge in the near future in Pakistan. To fix the issue of low agricultural productivity and food security to some extent, an attempt is made to examine the impact of improved technology and land use intensity on agricultural TFP and to explore the co integration relation between agricultural land use intensity and agricultural total factor productivity in Pakistan. This study uses ARDL model which elaborated the long and short run impact of the improved technology and land use intensity on agricultural TFP. The results show positive and significant effect of improved technology and land use intensity on agricultural TFP. This study guides the policy makers to address the issue of low agricultural productivity in general in the region and particularly in Pakistan through agricultural technology and agricultural land use intensity.

**Keywords:** Agriculture, Factor Productivity, Multivariate Cointegration Analysis, Food

## **80. Factors Affecting Total Factor Productivity of Conventional & Islamic Banks in Pakistan**

**Khurram Shehzad<sup>1</sup>, Dr. Muhammad Abbas Mian<sup>1</sup>**

<sup>1</sup>Air University Multan Campus

### **ABSTRACT**

This study attempts to measure and compare the Total Factor Productivity (TFP) growth of Conventional and Islamic Banks in Pakistan from 2014 to 2018; besides exploring as to what factors affect the productivity growth of banks in Pakistan. The research sample comprises of top five banks from each banking segment, based on number of branches whereas their annual audited accounts have been used to retrieve the requisite information relevant to investigation. In first phase, the non-parametric technique called Data Envelopment Analysis (DEA) is employed to calculate the Malmquist Productivity Index (MPI) of the banks. Then the MPI is decomposed into technological change and technical efficiency change index to compare the exact source of productivity. In second phase, we have run Tobit Regression of productivity scores (TFP) on to vector of various explanatory variables to determine the factors affecting or explaining the TFP of commercial and Islamic banks in Pakistan. There were 7-explanatory variables included in the study i.e. Age of the bank, Corporate Governance Practices, Employee Efficiency, Size of Operations, Mark-up Rates, Market Capitalization and Return on Assets whereas three of the variables used in the study i.e. Age of the Bank, Corporate Governance Practices and Mark-up Rates have been identified as statistically significant which can be construed as the factors affecting the TFP growth of Conventional and Islamic Banks in Pakistan. In this regard, the regulators i.e. SBP and S.E.C.P may advise the banks for strict compliance and adherence to Corporate Governance Practices whereas the portfolio managers, investors and other stakeholders deciding about their investment or business strategies on the basis the basis of productivity; may give due weightage to the identified factors affecting total factor productivity of the banks.

**Keywords:** Factors Affecting, Total Factor Productivity, Conventional, Islamic Banks, Pakistan

## **81. The Impact of Exchange Rates, Oil Prices and Interest Rates on Stock Index during different political regimes in Pakistan**

**Iqra Fraz**

Air University Multan Campus

### **ABSTRACT**

The study evaluates the impacts of different macroeconomic variables on stock index of Pakistan. These variables include exchange rates USD/PKR, interest rates and oil prices (dollars per barrel). These have been taken as independent variables and their impacts have been seen on

stock index (KSE-100 index) during different political regimes in Pakistan. The data has been divided into three different time periods as PML-Q regime (2002-2008), PPP regime (2008-2013) and PML-N regimes (2013-2018). Monthly data has been taken and simple regression has been used to compute the impacts of variables. Exchange Rate had an insignificant impact on stock index while oil prices and interest rates had a significant impact on stock index in PML-Q era. During PPP regime, all macroeconomic variables used in the study had significant impacts while in the political era of PML-N, Exchange rates and oil prices have insignificant impacts and interest rates had a significant impact.

**Keywords:** Exchange Rates, Oil Prices, Interest Rates, Stock Index, political regimes

## **82.Linguistic impacts of advertising jingles on consumer's buying behavior**

**Azka Sehrish**

The Government Sadiq College of Women University, Bahawalpur

### **ABSTRACT**

Consumers want new and novel things, so in order to fulfill their needs, advertisers and marketers look forward to such persuasive techniques that not only hit consumers' mind and perception but also increase their sales. Among such great competitions, the producers want to demonstrate the uniqueness of their product. They want to differentiate it from the rest, so that they try to find new techniques of advertisement. Jingle is one of such techniques used to attract mass and increase number of sales. The following study has been conducted to check linguistic impacts of jingles on consumers' buying behavior. It is mix method study in which a survey comprised of Likert scale questions has been distributed to students and teachers of Government Sadiq College Women University. For qualitative research analysis, in depth interview is used as a tool. Taking jingles as a variable this study is intended to tell that how the ad's jingles attracting the customer towards product and grasp the customer attention. The study is important because no one studied the aspect of jingles in the Pakistan and its impact on consumer purchase intention. It's a new area of study and gives fresh insights to marketers about consumer purchase intention and the importance of jingles in taking purchase decision. The data was analyzed by using SPSS software and representation of data was done in the form of pie charts and tables. The results of this study revealed that 85% respondents gave response that language of advertising jingle is very effective in advertisements and 77% respondents responded that advertisements which are having jingles become more attractive and catchier. The medium impacts of advertising jingles on consumers purchase intention have been concluded, 31% respondents responded that they do not intent to buy product due to advertisement jingle due to their family background.

**Keywords:** Linguistic impacts, advertising, jingles, consumer, buying behavior

### **83. Effects of Online Education and Social Distancing During Covid-19**

**Dr. Sarwat Sultan<sup>1</sup>, Syeda Zainab Raza Gillani<sup>2</sup>, Syed Muzaffar Hussain<sup>2</sup>, Saria Aleem<sup>2</sup>**

<sup>1</sup>Chairperson/Associate Professor, Department of Psychology, Bahauddin Zakariya University, Multan, Pakistan

<sup>2</sup>National College of Business Administration & Economics, Multan Campus

#### **ABSTRACT**

The purpose of this study is to investigate the learners' perception on online learning in the midst of a COVID-19 pandemic. This research applied qualitative method. The subject of this research is to study the effects of online learning and social distancing during COVID-19 crisis. The instrument used is semi-structured interview. Thus, the pandemic of Covid-19, the learners are interviewed by calling them by using Skype and WhatsApp application. A thematic analysis was employed in the current study. The study showed that the learners' perception on online learning reveals that it is good in the midst of COVID-19 pandemic. They perceived online learning is very helpful in the middle of pandemic. This study not only report that online learning is good in the midst of COVID-19 pandemic but also spotted the light on the availability of internet access, financial issue, and online learning implementation. At the learners' condition in terms of financial issue, they hope that lecturers make use of facilities such as free Messenger application in Online Learning System. In the light of the availability of internet access, they said that individual tasks are better to keep the distance physically due to pandemic, they need group tasks to help friends who do not have an internet pulse and access. About the implementation, they hope that material and assignment must be preceded by explanation. Thus, they recommended that Voice Note will be effectively used when giving instructions. It implied that the material and instruction implemented by the lecturer in the online learning were not easy to use.

**Keywords:** Online Education, Social Distancing, Covid-19, Corona, Online Learning System

### **84. Student's Perspective Regarding the Nature of the Silent Letters: A study conducted at the Primary Level**

**Romaisa Maryam**

#### **ABSTRACT**

The current article was designed to investigate Student's Perspective Regarding the Nature of Silent letters: A study conducted at the primary level. The following objective of the article was: to find out the reasons for incorrect pronunciation and spelling mistakes in academic writing because of silent letters. The article is further confined to only two institutions i.e. one public sector schools and one private sector schools belonging to the area of Bahawalpur. The theory of silent letters by Carney (2012), theory of phonology by Odden (2015), and for error analysis the theory of error is used as grounded theories for research. The present article is quantitative in

nature. The research consisted of 100 students taken as participants who were randomly selected from the primary level. To achieve the objectives of the research and to obtain the effective results from the collected data following instruments the researcher designed the following instruments. The collected data is quantitatively evaluated using Statistical Package for social Sciences (SPSS). The result of the article indicates that students face difficulties in pronunciation because of silent letters. They make mistakes in academic writing because of silent letters. The findings of the study suggest that there should a proper introduction to silent letters and rules of silent letters in the syllabus of primary students to avoid errors in academic writing and pronunciation.

**Keywords:** Silent Letters, Primary Level Education, Syllabus, Academic Writing, Pronunciation

### **85. Impact of Emotional Maltreatment on a Pupil Due to Teacher Verbal Abuse: A Study Conducted at Primary Level**

**Faria Arooj**

#### **ABSTRACT**

The current study was designed to investigate the Impact of Emotional Maltreatment on a Pupil due to Teacher's Verbal Abuse: A Study Conducted at Primary Level. The following objectives of the study were: to find out how words said by the teachers affects a student, find out that verbal abuse does really affect student learning, find out a direct relationship of a teacher's behavior with his student performance and to highlight the importance of educational psychologist in school. The research is further confined to only four institutes i.e. two public sector schools and two private sector schools belonging to the area of Bahawalpur. The researcher has followed three well known theories: Sigmund Freud's Psychoanalytical theory, Erickson's Developmental theory and Kalus Grawe's Basic Psychological needs theory.

The present research is quantitative in nature. The study consisted of 100 pupils taken as participants who were randomly selected from primary level. To achieve the objectives of the research and to obtain the effective results from the collected data following instruments the researcher designed following instruments. The collected data is quantitatively evaluated using Statistical Package for Social Sciences (SPSS). The result of the study indicates that potential consequences of this negative experience on behavior problems. Much still remains to be learned about the underlying mechanisms explaining the longitudinal relation between verbal abuse by the teacher and individual adjustment. Nevertheless, our findings suggest that information about the potential consequences of negative teacher behavior needs to be included in early education teacher training and there must be an educational psychologist in every school.

**Keywords:** Emotional Maltreatment, Pupil, Teacher, Verbal Abuse, Teacher Behavior

## **86. Doubts about Islam in modern times and their redressal**

**Hafiz Kaleem Ullah ,Muhammad Samee Ullah**

### **ABSTRACT**

The enemies of Islam are engaged in distorting Islamic teachings by every means, method, and style. The Islamic Shariah is fourteen hundred and fifty years old and does not meet the requirements of the present day. There are many such sources. One of them is to create doubts about Islamic teachings and its injunctions so that the spirit of rebellion against Islam may develop. The rejection and explanation of these suspicions are based on cruelty that the establishment of these limits is not oppression but the implementation of justice and fairness.

**Keywords:** Doubts, Islam, modern times, redresser, Islamic teachings

## **87. A Strategic Review of Measures against COVID-19 in Pakistan and Neighboring Countries**

**Arsalan Tanveer<sup>1</sup>, Saira Naseer<sup>1</sup>, Song<sup>1</sup>**

<sup>1</sup>Nanjing University of Science and Technology, China

### **ABSTRACT**

The study briefly discusses the Adopted Strategies about novel Coronavirus by Pakistan and its neighboring countries especially China. Pakistan has four neighbor countries which are China, Iran, India and Afghanistan. Data is obtained from World Health Organization (WHO) database from January 2020 to July 2020 for the number of confirmed Coronavirus cases and strategies adopted in different regions of the world. The research is supported by Resource Based Theory and Dynamic Capabilities Theory while the data is analyzed using graphs and percentile methods. The research elaborated the three main dimensions of COVID-19 which are Health measures, Lock Downs, Financial Aid as the strategies of countries (China-Pakistan-Iran-India Afghanistan). The study concluded that China, New Zealand, Vietnam, and some other nations adopted the best strategies to fight against COVID-19 and showed a living example for other countries. COVID-19 brings a very bad impact on the global economy and also affects the economical, technical, political, and social life of the world. The results indicated that Pakistan should be careful from Indian and Iran borders due to large numbers of cases. The paper investigated the long-term impacts of COVID-19 on the World Economy.

**Keywords:** Strategic Review, Covid-19, Corona Virus, China, New Zealand, Vietnam, Pakistan

## **88. Role of Mosque in Islamic Society in Present Era**

**Hafiza Samreen Akhtar**

National College of Business Administration and Economics, Multan Campus

### ABSTRACT

One of the many graces which Allah (swt) has bestowed upon the generous Muslim Ummah is that He (swt) has made the whole Earth pure, so that it serves as a mosque and a grand mihrab, where Allah (swt) is worshipped in every single corner of it, whether in the mosques, in the markets, in the streets, or at schools and universities, in the houses, at the frontiers and so on. Therefore, the whole earth is a mosque and this is indicated by the hadith<sup>4</sup> reported by Bukhari and Muslim on the authority of Jabir ibn 'Abdullah that the Messenger of Allah (saw) said, 'I have been granted five things which were not granted to any other prophet before me: I have gained victory with awe from the period of one month (before the battle); the Earth has been made sacred and pure and a mosque for me, so whenever the time of prayer comes for anyone of you, he should pray wherever he is; the spoils of war have been made lawful for me and these were never made lawful to anyone before; I have been granted shafa'a (intercession on the Day of Judgment); and every Prophet was sent particularly to his own people, whereas I have been sent to the whole of mankind."

**Keywords:** Mosque, Society, Islam, West, Ummah, Harmony, Peace

### 89. Exploring the relationship between Emotional Intelligence and Mantle Health of University Students

**Hafiza Aroosa Maraj<sup>1</sup>, Noshaba Anjum<sup>1</sup>, Amana Yusuf<sup>1</sup>, Samiya<sup>1</sup>, Ayesha Akram<sup>1</sup>,  
Mohsina Hamid<sup>2</sup>**

<sup>1</sup>Riphah international university FSD, Faisalabad, Pakistan

<sup>2</sup>Independent Medical Collage Faisalabad, Pakistan

### ABSTRACT

The aim of the present study is to explore the relationship between mental health and emotional intelligence of university students. The sample size N = 502 consisted of public sector university students, selected from the fields of postgraduate sciences and social sciences aged 20-25 years with equal gender. Through convenient sampling technique data was collect. Consistent tools such as scale of Mental Health Inventory and emotional intelligence were used to evaluated EI and MH. An irrational test of rejection or acceptance of the null hypothesis, the correlation between Pearson products, which found that there is a positive and significant correlation between mental health and emotional intelligence with  $r = 0.80^{***}$ . Current study confirms showed that there occurs positive relationship between mental health and emotional intelligence among students and it was also found that females are more emotionally intelligent as compared to males, like this female's mental health are higher than males. The implications of future research and the scope of current findings are discussed.



**Key Words:** Mental Health, Emotional Intelligence, University Students.

## **90. Prevalence of Vit-D Deficiency in Medical Students**

**Faryal Adnan<sup>1</sup>, Naheed Qadir Memon<sup>1</sup>, Adnan Sami<sup>2</sup>, Munazzah Meraj<sup>1</sup>, Rehnaz Shaikh<sup>1</sup>**

<sup>1</sup>Peoples University of Medical and Health Sciences, Nawabshah

<sup>2</sup>Pakistan Medical Institute

### **ABSTRACT**

Vitamin D deficiency is pandemic health problem due to worldwide re-development. It is now recognized as a prevalent over whole world. The main purpose of this study was to evaluate the prevalence of vitamin D status in medical students and to evaluate the risk factor of vitamin-D deficiency which will be helpful for their physical and mental health. It was cross sectional study conducted in PUMHS. Sample was collected from PUMHS (SBA). To collect data written consent was taken. Permission was sought from in-charge of ethical committee of PUMHS. Student's age was from 18 to 27 years. Students who were suffer from any endocrinal disorder and who were on drug therapy, which affect calcium and vitamin-D metabolism like corticosteroids, rifampicin and phenytoin was excluded. Sample size was 282. The two main factors were included in this study Sun exposure and Diet. In this study 4.9% (n =14) students had exposure to sunlight <15minutes/day with mean vitamin D values  $14.71 \pm 3.75$ . 66.9% (n=188) have exposure to sun light 15-30 minutes with mean vitamin D values  $15.45 \pm 9.32$  and 28.2% (n= 80) have exposure to sun light > 30 minutes/ day with mean vitamin D values  $35.80 \pm 7.79$ . p value was 0.001. 7.7% (n=22) medical students taken poor diet with mean vitamin D values  $13.23 \pm 7.61$ , 89.4% (n=252) taken good diet with mean vitamin D values  $31.81 \pm 8.88$  and only 2.8% (n=8) taken extraordinary diet with mean vitamin D values  $34.57 \pm 3.23$ . p value was 0.000. So it was concluded that both factors plays a crucial role in vitamin D synthesis.

**Key words:** Vitamin-D, Sun Exposure, Deficiency, Prevalence.

## **91. Hyperproduction of urate oxidase (BEM-2) by optimizing liquid state fermentation medium**

**Munazzah Meraj<sup>1</sup>, Rao Irfan<sup>1</sup>, Saleh Khaskhli<sup>1</sup>, Aroosa Meraj<sup>2</sup>, Sadia Javed<sup>3</sup>**

<sup>1</sup>Peoples University of Medical and Health Sciences for Women, Nawabshah

<sup>2</sup>Ripha International University Faisalabad

<sup>3</sup>Government College University Faisalabad

### **ABSTRACT**

Urate oxidase is a crucial enzyme for uric acid estimation in different biological fluid. This research was focused on hyperproduction of industrially important urate oxidase by liquid state

fermentation (LSF) after mutagenesis of *Bacillus subtilis* by using different chemical mutagens. Ethyl methane sulfonate mutagen treated strain (BEM-2) at 180 minutes dose rate was exhibited best results for optimum production of urate oxidase. The selected strain BEM-2 was used for obtaining optimum yield of enzyme. The fermentation medium (substrate concentration, fermentation period, pH, temperature, inoculum size, nitrogen and carbon sources) of parental and mutated strains was optimized individually. The results exhibited that LSF with substrate concentration (0.5 %), pH8.5 at 35 °C temperature was produced urate oxidase by parent (40.16±0.91 U/mg) and mutant strain (12.72±1.26 U/mg) after 36 hours. It was studied that yeast extract (0.3%) was the best nitrogen source for hyperproduction of parent and mutant derived uricase. When peptone (0.2%) and sodium nitrate (0.5%) added in the medium, maximum yield of enzyme was obtained. The effect of various carbon sources was compared and observed that sucrose (2%) was the best carbon source. It was produced optimum yield of the uricase by parent and mutant derived strains. It was concluded that the nutritional requirements of mutated strain observed to be the same as those of parental (wild) *Bacillus subtilis*.

**Key words:** urate oxidase; *Bacillus subtilis*; Ethyl methane sulfonate; mutagenesis; fermentation medium

## **92. Effect of inhibitors on urease enzyme activity to control ammonia volatilization**

**Munazzah Meraj<sup>1</sup>, Aroosa Meraj<sup>1</sup>, Rao Irfan<sup>2</sup>**

<sup>1</sup>Peoples University of Medical and Health Sciences for Women, Nawabshah, Pakistan

<sup>2</sup>Ripha International University, Faisalabad, Pakistan

### **ABSTRACT**

Urea is the major nitrogenous fertilizer in Pakistan but excessive failures regarding ammonia volatilization. The problem leads to one particular facet the actual huge nation's decrease in nitrogenous resources along with on the other side the decreasing of plant growth due to the lack of nutrition and environmental increase in nitrogen cause various skin problem. When urea is actually applied to the soil, nitrogen decline occurs as a result of ammonia volatilization because of fast hydrolysis involving urea to ammonia from the actions involving enzyme urease. That study had been carried out to minimize ammonia failures under laboratory conditions by utilizing urease inhibitor. Soil samples were compiled by Natural cotton along with rice farms of Department of Crop Physiology, University of Agriculture Faisalabad, Pakistan. The urea, urea + ammonium thiosulfate (ATS) were independently used about soil surface. Ammonia loss by soil surface seemed to be determined and the facts seemed to be studied statistically. Urease inhibitor (ATS) minimize nitrogen loss within cotton in addition to rice soil 22.32% and 21.23% respectively in first experiment and 25.71% and 25.30% in the second experiment. The final results in this study work tend to be telling ample. It was a worthwhile action towards control of urea loss together with handle the environmental pollution associated with ammonia.

**Keyword:** Urease, Urease inhibitor, ammonium thiosulfate

### **93.Backache in general surgeons**

**Syed Murtaza Ali, Sana Raza, Shaista Parveen, Afshan Ali, Samreen Naz**

#### **ABSTRACT**

The aim of this study was to investigate prevalence of work-related low back pain among general surgeon.

This cross-sectional study was conducted during July 2019 to January 2020 among general surgeons working in different private and government hospitals of Nawabshah, Hyderabad, Karachi Sindh. A total of 160 Questionnaires were distributed among study participants. The NPRS and Standardized Nordic Questionnaires were used.

160 Surgeons were surveyed. Out of 160 general surgeons 129 (80.6%) surgeons reported low back pain while there was mild to moderate intensity. 6.3% general surgeons reported that they were hospitalized due to low back pain.

A High prevalence of low back pain was found amongst general surgeons without any pathology working at different government hospital of Sindh (Nawabshah, Hyderabad, Karachi). The low back pain was indicated as work related due to prolong standing and long hour of surgical process. The finding of this study has important clinical implication for prevention and early management of low back pain among general surgeons.

**Keywords:** work-related, low back pain, general surgeon

### **94.Evaluation of physical activity among menopausal women in Nawabshah**

**Syed Murtaza, Ariba Johar, Roshan, Afshan, Jaweria**

#### **ABSTRACT**

To evaluate the level of physical activity among menopausal women in Nawabshah. This cross-sectional study was conducted during November 2019 to January 2020 among menopausal women in Nawabshah. Participants were approached through convenience sampling technique, and comprised of 200 menopausal women. Data was collected from houses, hospitals and OPDs from different areas of Nawabshah. Data was collected through standardized questionnaire that is related to physical activity. Moreover, a demographic proforma was used to obtain demographic information of all participants. Among the population of 200 menopausal women in Nawabshah, 98 (49%) were inactive and 102 (51%) were active. Moreover, 17.5% were engaged in vigorous activity, 40% were engaged in moderate physical activity, while 41% were engaged in walking. It was found that the mean age is 54.32 years (age range 45-70 years). Majority of women were married 73.5% and unemployed (77%). On the basis of results, we found that the level of physical activity among menopausal women is higher than the physical inactivity.

**Key words:** Menopause, physical activity.

**95. Explore the association between Hopelessness and Resilience in global circumstances of Covid-19 taking over lives of people in Punjab and Sindh: A cross sectional study**

**Hafza Aroosa Maraj<sup>1</sup>, Munazzah Meraj<sup>2</sup>, Mohsina hamid<sup>1</sup>, Faryal Adnan<sup>1</sup>, Samiya Malik**  
Riphah International University, Faisalabad  
People University of Medical and Health Sciences, Nawabshah, Pakistan

**ABSTRACT**

A healthier understanding of the presented research is to explore the importance of associations between resilience and hopelessness in the global condition of COVID-19 in Pakistan especially Sindh and Punjab, to check how the people taking their lives in current pandemic situation. Cross sectional study was designed with Sample from the general population (N=650) of both gender male and female. With age-range of 18-65 were taken through convenient sampling technique through online Google form. Standardized psychological instruments were administered to measure the variables where Beck hopelessness scale was used for check the hopelessness and wagnild resilience scale to check the resilience. The relationship was explored with Pearson product correlation. The examined results show that there was significant association between resilience and hopelessness ( $r=-0.88$ ,  $p<0.01$ ). Conclusion exposed that a strong influence of the resilience behavior that decreases the hopelessness even during worldwide pandemic situation. This study develops the literature connected to the psychological investigation.

**Keywords:** Resilience, Hopelessness, Sindh; Punjab, COVID-19

**96. The Share of Stigmatization in the Association of Psychological distress and Life satisfaction in mothers of Children with ASD in Faisalabad, Pakistan**

**Shahnaz Rana<sup>1</sup> and Noshaba Anjum<sup>1</sup>**  
<sup>1</sup>Riphah International University Faisalabad, Pakistan

**ABSTRACT**

The presented research conducted to investigate relations between psychological distress and life satisfaction and to find out mediating role of stigmatization between psychological distress and life satisfaction among mothers of children with ASD as compare to mothers of normal children in Faisalabad City. Correlational research design used to process this research. Kessler Psychological Distress Scale, Perceptions of Stigmatization by Others for Seeking Help scale and The Satisfaction with Life Scale used to measure the variables. A sample of (N=80) comprised of mothers of children with ASD (n= 40) and mothers of normal children (n=40)

drawn by using purposive sampling technique. T-test, regression analysis and Hayes mediation model used for statistical analysis. T-test indicated high psychological distress and low life satisfaction in mothers of children with ASD as compare to their normal counter parts. The model 4 of Hayes Process Macro showed direct impact of the psychological distress on life satisfaction is less than indirect effect through mediation role of stigmatization while with 82 % variance confirmed. Linear regression analysis showed psychological distress as significant predictor of life satisfaction. It can be concluded that mothers of children with ASD has low life satisfaction due to the high psychological distress which amplifies with stigmatization in contrast to their normal counterparts. These findings can increase a special viewpoint in literature and help those researchers who want to study the given variables with different angles and can be helpful in developing interventions for the care givers such as mothers of children with ASD.

**Keywords:** Life Satisfaction, Psychological distress, Stigmatization, Autism Spectrum Disorder (ASD)

## **97.Spirituality and Hopelessness in the Worldwide Pandemic situation**

**Shahnaz Rana<sup>1</sup>, Hafiza Aroosa Meraj<sup>1</sup>**

<sup>1</sup>Riphah International University Faisalabad, Pakistan

### **ABSTRACT**

The presented research has aim to describe the role of spirituality in the worldwide pandemic situation in Pakistan having inverse relation with hopelessness. The correlational research design was used and data was gathered by convenience sampling and standardized psychological tools used to measure the variables named The Daily Spiritual Experience Scale (DSES) and Beck Hopelessness Scale (BHS). The participants were (N=540) Pakistani general population with the age range of 16-50. The outcomes revealed that spirituality is negatively correlated with hopelessness ( $r=-0.69^{**}$ ). Conclusion revealed that spirituality has a strong influence in reducing the hopelessness in the global catastrophic situation. This study improves the literature related to the psychological research on the role of spirituality coping strategies especially in the state of ambiguity.

**Keywords:** Spirituality; Hopelessness; Pandemic; Pakistan

## **98.Impact of the Monetary Policy on the Inflation in Pakistan**

**Kamran Bhatti<sup>1</sup>, Nadia<sup>1</sup>, Shahid Abbas<sup>1</sup>, Bushra Khalil<sup>1</sup>**

<sup>1</sup>National College of Business Administration and Economics, Multan Campus

### **ABSTRACT**

The objective of the study is to check the impact of the monetary policy on the inflation in the context of the Pakistan over the period of the 29 years (1991-2019). Data is collected from the

World Bank and various issues of Pakistan Economic Survey and International Financial Statistics (IFS). Outcomes of the Ordinary Least Square (OLS) Analysis show that MS, ER, IM and IR are statistically significant and have positive impact on the Inflation (INF) in the Pakistan. While the BD has statistically significant and negative impact on the inflation. Results of the study suggest that government would announce such policies, in which level of the inflation remain stable through the interest rate and exchange rate because these variables can control or reduce the inflation in the country.

**Keywords:** Monetary Policy, Inflation, OLS, Pakistan

## **99. Moderating effect of Employment rate, Literacy rate and Foreign Direct Investment on relationship between Remittance and Economic Growth in Pakistan**

**Afsheen Hashmat<sup>1</sup>, Nadia<sup>2</sup>, Naeem Ur Rehman<sup>1</sup>**

<sup>1</sup>University of Lahore

<sup>2</sup>National College of Business Administration & Economics, Multan Campus

### **ABSTRACT**

This article focuses on the relationship between remittances and economic growth in Pakistan over the period of 1985 to 2017. Literacy rate, employment rate and foreign direct investment play a prominent moderating role in enhancing the impact of remittance on economic growth. A standard growth model is estimated using the regression analysis. Employment rate and literacy rate have positive and significant impact on economic growth, while foreign direct investment has negative but significant impact on economic growth. On the other hand, the combine effect of (REM\*EMR), (REM\*LTR) and (REM\*FDI) have positive and significant impact on the relationship of remittances and economic growth. Based on empirical results the study suggested that remittances have positive influence on Pakistan's economy by proper using of remittances in development sector. It is concluded that the increased remittances inflow is fruitful for the economy of Pakistan.

**Keywords:** Remittances, Economic Growth, Employment Rate, Literacy Rate, Foreign Direct Investment, Domestic Investment, Pakistan.

## **100. Remittances and Economic Growth in Philippines**

**Rafia Saira<sup>1</sup>, Fizah Khan<sup>2</sup>, Nadia<sup>2</sup>, Syeda Afreen Zahra<sup>3</sup>**

<sup>1</sup>Education Coordinator, British International School System, Multan

<sup>2</sup>National College of Business Administration & Economics Multan Campus

<sup>3</sup>National University of Modern Languages, Multan Campus

### **ABSTRACT**

Recent study was examining about remittances and economic growth in Philippines. The Auto Regressive Distributive Lag Model (ARDL) Analysis was used to get the results of the relevant study for the time period of 1990-2019 that showed there is positive long and short-run impact of Remittances on GDP while negative impact was found in between FDI and GDP. Findings also showed long run co-integration relationship among the variables. For the development of remittances, the Government should place different institutes for the awareness of remittances to the local people. Also, the Government should provide facilities to the workers while working in foreign countries.

**Keywords:** Remittances, Economic Growth, ARDL, Philippines

### **101. Determinants of Productivity in Large and Medium Size Firms in Pakistan**

**Komal Mehmood<sup>1</sup>, M. Umair<sup>1</sup>, Awais Khalid<sup>1</sup>, Mehak Ejaz<sup>1</sup>**

<sup>1</sup>National College of Business Administration & Economics, Multan Campus

#### **ABSTRACT**

This paper focuses on the relationship of multi factor productivity and money supply in long and short run. The study uses secondary data of the macro variables in the time span of 1983 to 2019. This study uses the unit root test to see the stationarity of the data. The Autoregressive Time Lag model has been used to see the link between the dependent variable and other macroeconomic independent variables used in the model. In order to increase the total factor productivity, the government must have to control inflation and make sure the use of new improved technology.

**Keywords:** Multi factor Productivity, Money supply, foreign Direct Investment, Capital Investment, Inflation, Trade, APOP

### **102. The Interaction effect of development and non-development expenditures on the relationship of public debt and economic growth in Pakistan**

**Nadia<sup>1</sup>, Afsheen Hashmat<sup>2</sup>, M. Umair<sup>1</sup>**

<sup>1</sup>National College of Business Administration & Economics, Multan Campus

<sup>2</sup>University of Lahore

#### **ABSTRACT**

The aim of the study is to check the impact of the of public debt on the economic growth of the Pakistan with the moderation effect of development and non-development expenditures on the relationship of public debt and economic growth. The Ordinary Least square (OLS) is used over the period of 1972-2019. Findings of the OLS show that PD, NONEXP, DI, FDI, LFPR has

statistically significant and positive impact on the GDP of the Pakistan. While the DEXP has statistically significant and negative impact on the economy. The moderation impact of PD\*NONEXP and DI\*NONEXP have statistically significant and negative impact on the GDP of the Pakistan. Results of the study suggest that governments and policymakers would made those policies in which further income could be generated and pay the debt services. When the excessive income is spent on the development projects then its impact become to start inverse on the economic growth of the country. So, there is also a need to be consideration to made the required expenditures on the development projects by the governments and policymakers.

**Keywords:** Gross Domestic Product, Public Debt, Development Expenditures, Non-Development Expenditures, Debt Service, Domestic Investment, Foreign Direct Investment, Pakistan.

### **103. Behaviour of Tourism Industry under the Situation of Environmental Threats and CO2 Emission: A Case study of China**

**Zara Amjad<sup>1</sup>, Rohail Pasha<sup>2</sup>, Daud Bilal<sup>2</sup>, Sehar Bano<sup>2</sup>**

<sup>1</sup>Assistant Professor, Government Degree College for Women, Sheher Sultan, Muzaffargarh

<sup>2</sup>National College of Business Administration & Economics, Multan Campus

#### **ABSTRACT**

During the process of development, economies have been creating a lot of environmental problems. Co2 emission is one of them. Co2 emission not only harms our climate but also have negative impacts on development of many industries. Tourism industry is one of them. So, the ambition of this study is to examine the behavior of tourism industry under this situation in China. To explore the relationship between dependent variable Tourism Industry and independent variables Co2, GDP Growth rate, International tourism expenditures (% of total imports) and Trade (% of GDP), annual time series data is used from 1996-2019. Ordinary Least Square (OLS) method is applied to estimate the long run relationship between dependent variable and independent variables. The results express that Co2, International tourism expenditure and Trade shows positive and significant relationship with dependent variable tourism Industry. While Gross domestic product growth rate has positive and statistically insignificant impact on tourism industry of China. The results suggest that greater the emission of Co2, greater will be the impact on Tourism Industry.

**Keywords:** Co2 emission, Tourism Industry, Ordinary Least Square (OLS) Method, China

### **104. Effect of Covid-19 on Education and Income in District Multan (Pakistan)**

**Sanie Zahra<sup>1</sup>, Rohail Pasha<sup>1</sup>, Daud Bilal<sup>1</sup>**

<sup>1</sup>National College of Business Administration & Economics, Multan Campus



### ABSTRACT

This study shows the effect of Covid-19 on education and income level of families and households in district Multan, based on primary data set of 220 respondents collected through Questionnaires from person to person individually. Convenient sampling technique has been applied. The findings of the study have shown that Covid-19 has greatly affected the family income and thereby brought huge economic burden. Household's expenditures have additionally increased in terms of sanitization utilities. This study also has shown that learning capability of students has also been affected. Study also confirms that e-classes are not a perfect substitute and respondents were not satisfied with e-learning compared to regular ones. The study is also furnished with some relevant suggestions.

**Keywords:** Covid-19, Education, Income, Convenient Sampling, District Multan

### 105. Agriculture Productivity and Economic Growth: A Case Study of Pakistan

**Sanie Zahra<sup>1</sup>, Nasir Qureshi<sup>1</sup>, Yumna Haider<sup>1</sup>, Ayman Khan<sup>1</sup>**

<sup>1</sup>National College of Business Administration & Economics, Multan Campus

### ABSTRACT

This research aims to investigate the impact of agricultural productivity on economic growth of Pakistan. To examine the relationship between dependent variable growth rate of GDP and independent variable agriculture productivity, domestic savings, domestic investment and labor force over the period of time 1991-2019. Ordinary least square (OLS) results of this study show that there exists a positive and significant impact of domestic saving, domestic investment and labor force on economic growth while agriculture productivity is negatively related and have insignificant impact on GDP growth of Pakistan. It is concluded that economic growth can be enhanced by saving more and investing in agriculture sector. Furthermore, in the end some policy recommendations are also given relevant to the study.

**Keywords:** Agriculture Productivity, Economic Growth, OLS, Pakistan.

### 106. Impact of Corruption on the Economic Growth of Pakistan

**Rabia Zulfiqar<sup>1</sup>, Madeeha Sadiq<sup>1</sup>, Awais Khalid<sup>1</sup>, Kamran Bhatti<sup>1</sup>**

<sup>1</sup>National College of Business Administration & Economics, Multan Campus

### ABSTRACT

Corruption has a significant importance in research in various fields like sociology, economics, history and public administration. This study investigates the relationship of corruption and economic growth in Pakistan. Time series data is taken for 25 years covering the period from

1990-2014. The stability of data is checked by applying unit root test and multiple regression technique. It is found that corruption has a significant impact on economic growth and affecting it negatively. While other variables domestic investment, trade openness, inflation and employed labor force also affected economic growth significantly. Domestic investment, trade openness and employed labor force impacted economic growth positively while inflation affected negatively.

**Keywords:** Corruption, Economic Growth, Multiple Regression Technique, Pakistan.

### **107. Solid Phase Extraction Method for the Preconcentration of Nickel Ni (Ii) From Aqueous Solution Using Magnetic Max Phase (Fe<sub>3</sub>O<sub>4</sub>-Ti<sub>3</sub>AlC<sub>2</sub>)**

**Asia Parveen<sup>1</sup>, Mansoor Khan<sup>1</sup>, Muslim Khan<sup>1</sup>**

<sup>1</sup>Department of Chemistry, Kohat University of Science and Technology, Kohat, Pakistan

#### **ABSTRACT**

In the present study, Titanium aluminum carbide (Ti<sub>3</sub>AlC<sub>2</sub>) impregnated with magnetic Nanoparticles (Fe<sub>3</sub>O<sub>4</sub>-Ti<sub>3</sub>AlC<sub>2</sub>) was synthesized and characterized by using instrumental techniques such as, scanning electron microscopy (SEM), Energy Dispersive x-ray (EDX), Fourier transform infrared spectroscopy (FT-IR), and X-ray diffraction (XRD) for surface morphology, elemental composition, functional groups and crystallinity, respectively. The novel adsorbent has been used for magnetic solid phase extraction of Ni(II) from environmental water samples. The parameters including pH of solution, adsorbent dose, sample volume, vertex time and temperature effect were optimized. Quantitative recoveries for analytes were obtained at pH 6. Analytical parameter like the limit of detection (LOD), limit of quantification (LOQ) and enhancement factor (EF) are also calculated. Kinetic data shows that the adsorption process follows pseudo second order kinetic. Values of  $\Delta H^\circ$ ,  $\Delta S^\circ$  and  $\Delta G^\circ$  show that these adsorption processes are exothermic and feasible in nature. For equilibrium studies different isotherms like Langmuir, Freundlich, Temkin and D-R adsorption isotherms were applied. The validation of the method was carried out to environmental water samples like Tap water, Underground water, Dam water and waste water with satisfied recovery results. The presented separation-preconcentration method was applied to determination of Ni contents in environmental water samples.

**Keywords:** Solid phase extraction; Magnetic Max phase; Preconcentration.

### **108. Antibacterial and Synergistic Effects of Medicinal Plants against Drug Resistant Salmonella Parathyphi A**

**Muhammad Nabi<sup>1</sup>, Murtaza Khan<sup>1</sup>, Noor ul Akbar<sup>1</sup>, Naeem Usman<sup>1</sup>, Waheed Ullah<sup>1</sup>**

Kohat University of Science and Technology, Kohat, Pakistan

## ABSTRACT

*Salmonella enterica* serovars para Typhi (*S. Paratyphi A*), belongs to family enterobacteriaceae is causative agent of enteric fever and contributes major role in mortality and morbidity. The current study was designed to study the phytochemical effect of selected medicinal plants and to determine MIC of Ceftriaxone and Ciprofloxacin alone against drug resistant *S. paratyphi A* as well as to assess the antimicrobial and synergistic effect of selected medicinal plant extracts in amalgam with the mentioned antibiotics.

The resistant strains were obtained from Laboratory of Medical Microbiology, Department of microbiology, KUST and were screened for MIC determination of Ciprofloxacin and Ceftriaxone using Agar Dilution Method. Medicinal plants extract along with antibiotics Ciprofloxacin and Ceftriaxone were screened for their synergistic effects against resistant isolates of *S. paratyphi A*. The data was analyzed by using two-way ANOVA the P value  $<.05$  was considered significant. It was determined from the current study that MIC of Ciprofloxacin ranges from 8  $\mu\text{g/ml}$  to 256  $\mu\text{g/ml}$  while Ceftriaxone ranges from 8  $\mu\text{g/ml}$  to 512  $\mu\text{g/ml}$ . From the antibiotic susceptibility analysis, it was also concluded that no resistance was shown against levofloxacin. To check the antibacterial activity of plant extracts alone it was concluded that *S. paratyphi A* was very resistant to *Descurainia sophia* while no resistance was shown against *Berberies spp.*

**Keywords:** Ceftriaxone, Ciprofloxacin, *S. Paratyphi A*, MIC.

### **109. Linkages between market capitalization and firms' performance in Pakistan: A Multivariate asymmetric GARCH analysis**

Nabeela Naz<sup>1\*</sup>, Dilawar Khan<sup>1</sup>, Ihtisham ul Haq<sup>1</sup>

<sup>1</sup>Department of Economics, Kohat University of Science and Technology, Kohat, Pakistan

## ABSTRACT

Firms' performance in stock exchange plays a vital role in the improvement of economic growth in any economy of the world. Most of the developed economies captured their optimal level of economic growth and development by improving the performance of their firms in stock exchange. This research is based on analyzing the importance of market capitalization for firms' performance in Pakistan Stock Exchange (PSX). For this purpose, the study utilized daily time series data including the duration of 07/10/1999 to 31/05/2016. At first stage, the study employed ARCH test for detecting the existence of volatility in the data because normally financial data contains ARCH effect/volatility, which confirmed the presence of volatility in the data. Then the study applied asymmetric GARCH models including TGARCH and EGARCH models in order to analyze the impact of market capitalization on firms' performance in PSX as well as to detect the asymmetries in the model. The findings of the research displayed a positive and significant impact of stock market capitalization on firms' performance in PSX. The results also explored

the existence of asymmetric effect in the model showing that the impact of positive and negative shocks in the market capitalization of the same magnitude is not equal on the volatility. The results identified various factors along with market capitalization affecting firms' performance in PSX. The findings of the research are also valuable for policymakers in order to make effective and efficient policies to enhance the performance of firms in Pakistan Stock Exchange.

**Keywords:** Firms' performance, Stock market capitalization. Pakistan Stock Exchange, Asymmetric GARCH models.

## 110. Analyzing the Determinants of Income Inequality in Pakistan

**Bibi Taharat E Zahra<sup>1</sup>, Ihtisham ul Haq<sup>1</sup>, Dilawar Khan<sup>1</sup>**

<sup>1</sup>Department of Economics, Kohat University of Science and Technology, Kohat

### ABSTRACT

Income inequality is one of the core issues in economics that has grab attentions from researchers. Numerous research works has been work done in this regard but failed to provide consensus not only on its determinants but also failed to provide consensus on policy implications to reduce it. Income inequality is the fundamental obstacles to poverty alleviation. Therefore, it is important to analyze the determinants that inevitably decide the caliber of inequality in Pakistan. Such studies will be highly relevant to the policymakers as it empowers them to choose whether and how to initiate corrective action to reduce income inequality. Therefore, in order to tackle income inequality, it is obligatory to instantly examine the key determinants that may influence income inequality in Pakistan. It is evidence from the literature that number of studies examined determinants of income inequality in Pakistan but we did not come across any study that considers social protection, human capital and foreign direct investment (FDI) as determinants of income inequality. This study will examine effect of social protection contributions, human capital and FDI on income inequality along with other vital determinants. For this purpose, time series data will be analyzed through bounds test approach to examine effect of social protection contributions, human capital and FDI on income inequality in Pakistan.

**Keywords:** Income inequality, Social protection contributions, human capital, FDI, Pakistan

## 111. The Effect of Online Math Education and Students Anxiety of Learning Mathematics in Covid-19

**Dr. Namirah Aslam<sup>1</sup>, Asma Zahid<sup>1</sup>**

<sup>1</sup>Department of Education and training, Lahore College for Women University, Lahore.

### ABSTRACT

A survey method was used to investigate the effect of online math education and student's anxiety of learning Mathematics in COVID-19 at university level in Lahore. The basic purpose to design that study was to explore students' anxiety measures and introduce some coping strategies to minimize the students' anxiety in online learning math education. All students of graduate and post-graduate level in all public and private universities of Lahore were considered as population of the study. By using convenient sampling technique 500 students were selected from 4 public and 4 private universities. A standardized instrument 'Mathematics Anxiety Scale' was adapted after validity and reliability tests. The results showed the strong positive relationship between online math education and students' anxiety of learning mathematics. The online math education has statistically significance variance on students' anxiety of learning mathematics. Therefore, a significant medium effect size was found between public and private universities in online learning mathematics.

**Key words:** Online Math Education, Students Anxiety, COVI-19.

## **112. Impact of Fiscal Policy on Domestic Credit and Investment: A Case Study of Pakistan**

**Salma Yousaf<sup>1</sup>, Ihtisham ul Haq<sup>1</sup>, Alam Khan<sup>1</sup>**

<sup>1</sup>Department of Economics, Kohat University of Science and Technology, Kohat

### **ABSTRACT**

Investment has been playing a crucial and positive role in the economic growth and development of an economy. It is a basic and mandatory need of any growing economy worldwide. Each and every economy has been trying to elevate domestic as well as foreign investments in its respective region. For this motive, an attempt has been taken in this study by taking the case of Pakistan and analyzed the impact of fiscal policy on domestic credit and investment. Fiscal policy is composed of different policy indicators like budget deficit, government expenditure (development and non-development expenditure) and taxes along with control variables like economic development, financial development and inflation. The study estimated the parameters by using time series data. Initially, the research applied ADF and PP tests for investigating the problem of unit root in the data. Then Johansen cointegration test and Dynamic ordinary least squares approach were used to investigate the long run effects in the model. The research also employed several diagnostic tests to analyze the reliability and stability of the parameters. The results of the study indicated that effective fiscal policy influences the domestic credit and investment positively and significantly in the long run. The results suggest to construct a strong revenue system based on taxes in case of Pakistan in order to enhance domestic credit and investment. Moreover, the findings of the research also suggest the government to elevate expenditures for the purpose to improve the economic growth and development of Pakistan.

**Keywords:** Fiscal policy, Domestic credit, Investment, Johansen cointegration test, Pakistan.

### **113. Fiscal policy, Fiscal deficit and Economic Growth in Southern Asian Economies: Does the political stability matter?**

**Zia Ur Rehman<sup>1</sup>, Muhammad Azam Khan<sup>1</sup>, Muhammad Tariq<sup>1</sup>**

<sup>1</sup>Department of Economics, Faculty of Business & Economics, Abdul Wali Khan University, Mardan, Pakistan

#### **ABSTRACT**

The main objective of the study was to investigate the relationship between the fiscal policy, fiscal deficit and economic growth in the Southern Asian countries and the role of political stability over 2001 to 2018. We employed the Pooled Mean Group approach to estimate the data. The results reveals that gross capital formation, labour force, human capital, government expenditure and political stability have positive while inward foreign direct investment and fiscal deficit have negative and significant effect on economic growth. This study concluded that the increase in the government expenditure has significant effect to promote economic growth, therefore, this study strongly supports the Keynesian view regarding fiscal policy. The increase in fiscal deficit has adverse effect on economic growth, therefore, this support neoclassical theory regarding fiscal deficit. The political stability plays a vital role in the economic growth. in the both cases the government expenditure and fiscal deficit have the same effect but without political stability the significance level the government expenditure was weak and the effect of inward foreign direct investment was insignificance. This study recommends to expansionary fiscal policy, minimize fiscal deficit and strong political stability to accelerate economic growth.

**Keywords:** Government expenditure; fiscal deficit; political stability

### **114. Consumer Vanity and Compulsive Buying Behavior**

**Mr. Shakeeb Faheem<sup>1</sup>, Mr. Moin Ahmed Moon<sup>1</sup>**

<sup>1</sup>Air University Multan

#### **ABSTRACT**

It is needed to bring a subsequent change in the purchasing behavior of the consumers in developing countries because it has drastic impacts on the financial conditions of the society. This study aims to investigate the factors which are indulging the shopping mall consumers in excessive buying. This research also highlights the factors which are responsible for compulsive buying behavior. We used Stimulus-Organism-Response model for the conceptual development. Based on the previous researches we designed a questionnaire. Data was collected from young shopping mall consumers (18-35 years) of urban population of Punjab Pakistan. For the validity and reliability of the data confirmatory factor analysis is used and structural equation modeling is used for studying the relationship among variables. This study was conducted in major cities of Punjab Pakistan. Future researches can include other cities of Pakistan. Data was collected from

young shopping mall consumers. Researchers can include other age groups. Moreover, study based upon cross-sectional research design. Future researches can use longitudinal research design. The study findings reveal that there is a strong link between vanity and compulsive buying. Materialism and brand consciousness play a major role in defining a relationship between compulsive buying and vanity. There is a stronger association among achievement vanity and brand consciousness as compared to physical vanity. Similarly, consumers having physical concerns are more materialistic as compared to achievement concern consumers. Study also finds that people who are materialistic are more concerned about the possession of goods as compared to brand conscious consumers.

**Keywords:** Physical Vanity, Achievement Vanity, Brand Consciousness, Materialism and Compulsive Buying.

### **115. Does GDP Per Capita Reduce Income Inequality for South Asian Countries?**

**Majid Ali<sup>1</sup>, Muhammad Tariq<sup>1</sup>, Muhammad Azam Khan<sup>1</sup>**

<sup>1</sup>Department of Economics, Abdul Wail Khan University, Mardan

#### **ABSTRACT**

The widening gap between rich and the poor in South Asian countries is contrary to Kuznet's hypothesis. This paper challenges Kuznet's inverted U shape hypothesis by investigating the impact of GDP per capita on income inequality for South Asian countries by using panel data from the period of 1991 to 2016. The study uses econometric techniques on the Panel Data series data. All data are found to be stationary at first difference except Gini coefficient by using Im, Pesaran, Shin Test Augmented Dickey-Fuller (ADF) test. The results of panel ARDL co-integration test confirmed that there is a long-run significant relationship exists among the examined variables. The result of the error correction model (ECM) shows that inequality requires approximately 0.48% of error correction per year to reach equilibrium. This implies the deviation from short-run in income inequality is corrected by 48.321 percent over the each year in a long span of time. For country specific results by using a Kuznets framework, all four countries (the Bangladesh, India, Nepal, and Srilanka) confirmed N-shaped curve hypothesis for the GDP per capita-inequality relationship. While two countries (Pakistan and Bhutan) confirmed the S-shaped curve hypothesis for the GDP per capita-inequality relationship. All error correction models are found to be highly significant for all South Asian countries. Based on our findings, it is clear that policies need to be designed individually for each country, depending on their GDP per capita level and GINI index.

**Keywords:** Gini; Kuznet curve; Income inequality; Economic growth; Panel ARDL

## 116. Green Values & Organic Food Consumption

Mr. Furqan Ali Khan<sup>1</sup>, Mr. Moin Ahmed Moon<sup>1</sup>

<sup>1</sup>Air University Multan

### ABSTRACT

To investigate Pakistani consumer's green values attribute which in turn influence their hedonic attitudes, utilitarian attitude and intentions to buy organic food. Data collected via questionnaire from 328 young people who are organic food consumers. SPSS & Amos V21 used for data analysis and structural model. Significant relationships were found between green values, such as egoistic values (positive influence), biospheric values (positive) and altruistic values (negative) towards hedonic attitude and utilitarian attitude. Similarly, significant relationships were found between utilitarian attitude (positive influence) and hedonic (positive influence) towards organic food purchase intention. By incorporating different values of people and different attitudes for organic food, the marketer can convince the retailer for availability of organic food. This study presents a thorough consideration of consumer hedonic & utilitarian attitude towards organic food purchase intention.

**Key words:** Green values, Hedonic attitude, Utilitarian Attitude, Intention

## 117. Do Sentiments Crack the Dominance of Traditional Valuation Models?

Khadim Hussain

### ABSTRACT

The aim of this study was to investigate about which model has more explanatory power about excess stock return i.e. CAPM, Fama and French Three Factors or Fama and French Five Factors model and secondly the main purpose was to investigate about the impact of sentiment factor on excess stock returns predictability by applying the above-mentioned stock valuation models. For this study we got the panel data of a complete financial sector consist of 65 firms from S & P 500 for the period 2008 to 2019. We took the excess return as our dependent variable while CAPM, FF Five three and five factors model and sentiment factors (GSVI, AAI, Baker & Wurgler Index and Trading volume) as an independent variable. In this study we used the regression analysis and Statistical Test Related Sample Friedman's two ways ANOVA. Amazingly we found that FF Three factors model has more explanatory power as compare to CAPM and FF Five factors model when we apply these simple models without the impact of sentiment factor while with the addition of sentiment factor FF 5 has more explanatory power over the other model CAPM and FF Three Factors Model. Secondly, we investigated that the results of these traditional valuation models with the sentiment show very significant results as compare to without addition of sentiment in CAPM and FF three and five factors model for predicting the excess stock returns. So, this study will be helpful for individual investor, institutional investors and for financial



analyst during analysis about stock return predictability. Meanwhile, they should consider the sentiment effect for making analysis about excess stock return which will produce more accurate results as compare to applying above mentioned simple valuation models.

**Key Words:** CAPM, Fama French Three factors model, Five Factors model, excess stock return, sentiments.

### **118. Structural, Elastic, Mechanical, Electronic, Magnetic and Optical Properties of Half- Heusler Compounds CoFeZ (Z = P, As, Sb): a GGA+U Approximation**

**Dr. Rashid Ahmad<sup>1</sup>, Sonila Zahir<sup>1</sup>, Dr. Sajid Khan<sup>1</sup>**

<sup>1</sup>Department of Physics, Kohat University of Science & Technology, Kohat, Pakistan.

#### **ABSTRACT**

In this study Half-Heusler compounds CoFeZ (Z = P, As, Sb) are investigated in the general framework of Density Functional Theory (DFT). The Full Potential Linearly Augmented Plane Wave (FP-LAPW) technique is applied, using the Wien2k package for calculating structural, elastic, mechanical, electronic, magnetic and optical properties. Calculations for electronic exchange correlation energy are made by using GGA (Generalized Gradient Approximation) approach together with the onsite Coulomb interactions effect as (GGA+U). Large lattice constants are seen for all the three compounds namely CoFeP, CoFeAs and CoFeSb. Elastically, Former two compounds CoFeP and CoFeAs are ductile while latter one, CoFeSb is brittle in nature. All of them bear Half-metallic character with the small band gaps in the spin down channel. It is found that Magnetic moments follow the Slater-Pauling  $18M_t = Z_t - 18$  electron rule with the high total magnetic moments. Also, Optical properties such as dielectric function, refractive index, reflectivity, conductivity, and absorption coefficient are calculated and discussed.

**Keywords:** Elastic, Mechanical, Electronic, Magnetic, Half- Heusler Compounds CoFeZ, Full Potential Linearly Augmented Plane Wave (FP-LAPW)

### **119. GC-MS ANALYSIS AND ANTICANCER ACTIVITY OF CALOTROPIS PROCERA**

**Ujala Rauf<sup>1</sup>, Sajida Afzal<sup>1</sup>, Aamir Khan<sup>1</sup>, Rabia Nousheen<sup>1</sup>, Naireen Nayab<sup>1</sup>, Naseeb ullah<sup>1</sup>, Muhammad Adnan<sup>1</sup>, Kalim Ullah<sup>1</sup>**

<sup>1</sup>Kohat University of Science and Technology, Kohat, Pakistan

#### **ABSTRACT**

Traditionally, plants and plant derived extracts have been used for the treatments of various diseases including cancer. Medicinal plants are rich sources of bioactive molecules that can target multiple cellular processes and pathways involved in cancer progression. There are many plants that have been used for the treatment of various cancers traditionally in Pakistan, but their anticancer potential has not been studied yet. *Calotropis procera* (Aiton) Dryand is an important medicinal plant growing in the different regions of Pakistan. This plant is being used by the local people for the treatment of different diseases including cancer. The present study was designed to determine the important bioactive molecules by GC-MS analysis and to determine the anticancer potentials of the selected medicinal plant. Gas chromatography and mass spectroscopy analysis of compounds was carried out in ethanolic extract of *Calotropis procera* (Aiton) Dryand. The GC-MS analysis of *C.procera* leaves revealed the presence of seventeen compounds. The identified compounds possess many biological properties. For instance, 9,12,15-Octadecatrienoic acid, (Z,Z,Z)- Linolenic acid (R/T 20.06) possesses anti-inflammatory, insectifuge, hypocholesterolemic, cancer preventive, nematicide, hepatoprotective, antihistaminic, antieczemic, antiacne, 5-alpha reductase inhibitor, antiandrogenic, and antiarthritic. n-Hexadecanoic acid - palmitic acid (R/T 17.25) can be an antioxidant, hypocholesterolemic. Phytol- Diterpene (R/T 19.67) is an antimicrobial, anticancer, anti-inflammatory and diuretic agent. To find out the anticancer activity of selected plant different cancer cell line (SF767 and HeLa) was treated with ethanolic extract of selected plant at different concentration by using MTT bioassay. The ethanolic extract of *C. procera* showed highest reduction in cell viability 42.55% at concentration of 75mg/ml against SF767 cell line, likewise ethanolic extract of *C.procera* against HeLa cell lines showed 55.5% cell viability reduction. It is concluded from the study that *C.procera* can be used as a source of novel drug in cancer therapy.

**Keywords:** Bioactive Molecules, GC-MS, Anticancer Potentials, Gas Chromatography, Mass Spectroscopy, Pakistan.

## **120. Energy Crisis in Pakistan: Socio-Economic Implications and the Way Forward**

**Muhammad Shamshad<sup>1</sup>, Dr. Farooq Arshad<sup>2</sup>, Jahanzeb Akmal<sup>2</sup>**

<sup>1</sup>Ph. D Researcher at Pakistan Study Centre, University of the Punjab, Lahore.

<sup>2</sup>Assistant Professor International Relations, Bahauddin Zakariya University, Multan.

### **ABSTRACT**

Pakistan has been trapped by a blend of problems such as political chaos, economic turmoil, social unrest, religious extremism, rampant corruption, unemployment, pervasive poverty, child labour, moral degeneration etc. The energy crisis has added fuel to the fire; it has created many more socio-economic issues for the whole nation. This research study has highlighted the impact of the energy crisis in Pakistan particularly on its society and economy. It has enunciated that the energy crisis has deteriorated social setup in Pakistan as it has disturbed the domestic routines,

institutional schedules, health facilities, transportation system and educational procedure. Similarly, the crisis has pushed Pakistan into an economic decline. Most of the local and foreign investors have migrated to other states due to non-availability of electricity, gas and petroleum products. Resultantly, Pakistan is experiencing the lowest ebb of Foreign Direct Investment (FDI). Unannounced load-shedding has not only discouraged the industrialists but also has decreased the ratio of production- a severe setback to the rate of exports. Non-availability of energy has decreased the ratio of agricultural productivity that has a significant share in the gross domestic product (GDP) of Pakistan. The cottage industry has also fallen victim to the energy crisis. In this way, there is a restrained flight of foreign capital to the country. In the end, the study has recommended some policies which can be formulated and practised by the ends of both the government and the public to discard the energy crisis.

**Keywords:** Pakistan, Load-Shedding, Domestic Suffering, Reserves and economic Imputation.

## **121. Inward foreign direct investment impact on stock market development in Pakistan**

**Muhammad Tariq Khan**

Department of Economics, Abdul Wali Khan University Mardan, Pakistan

### **ABSTRACT**

The literature shows that the transformation effect of the inward foreign direct investment on stock market development is indirect. Because of this the FDI influence on stock market development can be neutral or expansionary. This study investigates the inward FDI impact on stock market development in Pakistan using data over the period 1993 to 2018. For results estimation, Johnson Cointegration, Fully Modified Least Squares (F.M.O.L.S) and Canonical Cointegrating Regression (C.C.R.) techniques are applied to the data. The findings reveal that FDI promote the stock market development in Pakistan in the long run. The findings suggest that attracting foreign direct investment in the country is dependent on effective policies, which can develop the stock market and ultimately boost the economic growth.

**Keywords:** Stock market development, FDI, remittances, inflation, Pakistan

## **122. Detection and Phylogenetic Analysis of Cytochrome B Gene of Leishmania Tropica in Patients of District Karak, Pakistan**

**Sadia Norin<sup>1</sup>, Shahid Niaz Khan<sup>1</sup>, Noor Ul Akbar<sup>1</sup>, Taj Ali Khan<sup>1</sup>**

<sup>1</sup>Kohat University of Science and Technology Kohat, Pakistan

### **ABSTRACT**

Leishmaniasis is a wide-ranging community of zoonotic and anthroponotic diseases caused by a variety of different *Leishmania* genus species that infects humans and other vertebrates. *Leishmania tropica* (*L.tropica*) is considered a causative agent for cutaneous leishmaniasis (CL) in Pakistan. The current study was conducted from May 2019 to January 2020 in greatly epidemic area of the District Karak KPK. A total of 60 (100%) confirmed samples were collected from various District of Karak health centres, in which 58 (96.66%) were microscopically positive. Molecular detection was performed by simple Polymerase Chain Reaction (PCR) for all verified patients with CL. PCR assay targeted Cytochrome b gene (Cyt b) using specific primers and detection in which 60 (100%) were confirmed by PCR products and then the amplified PCR product was subjected to Cyt b sequence analysis to detect the presence of genetic polymorphism among *L. tropica* Isolates. A total of 10 (16.66%) were entirely verified to investigate genetic polymorphism by sequence analysis. However, in the present research, the amplified Cyt b sequence analysis was applied to investigate the existence of genetic polymorphisms within *L. tropica* isolates and compares the results with the clinical features of CL lesions in patients in Khyber Pakhtunkhwa Southern District. The current analysis was therefore intended to further elaborate the phylogenetic relationships between *L. tropica* in the Pakistan Southern Region.

**Key words:** *Leishmania*, Cytochrome b (Cyt b), Phylogenetic analysis.

### **123. The Role of Collectivism on Willingness to Participate in Collaborative Consumption: Mediating Role of Consumer Ethnocentrism**

**Rifaqatullah**

#### **ABSTRACT**

The key objective of the study is the role of collectivism on willingness to participate in collaborative consumption with the mediating role of consumer ethnocentrism. Today, increasing number of consumers seek sustainability in their consumption decisions. Sustainability here exemplify such consumption and production practices that endorse positive effect on the ecology, human well- being and the economy, through individual, societal and policy level interventions. Due to this, collaborative consumption was advanced as yet another sustainable form of consumption that emphasize sharing of resources without ownership and possession with positive environmental and wellbeing effects. Policy makers, marketers and academics have been engaged to understand aspects of consumer behavior that derives sustainable consumption. The findings of this study are consistent with previous research that has investigated consumer ethnocentrism belief and its impact on sustainability related attitudes and behaviors. Further, these ethnocentric consumers have been shown to be ethical and responsible consumers with respect to their consumption decisions (Kaynak & Eksi, 2011; Van, 2017; Urbonavicius, Dikcius & Petrauskas, 2010).

**Keywords:** collaborative consumption, Consumer Ethnocentrism, collectivism on willingness to participate.

## **124. Impact of bank internal and macroeconomic factors on bank lending behavior in Pakistan**

**Muhammad Akhtar**

### **ABSTRACT**

The basic goal of current study is checking the impact of some banks specific and macroeconomic variables impact on bank lending behavior. Data collected from 20 Commercial Banks functioning in Pakistan including Conventional and Islamic Banks. Experiential results found that there is negative and considerable link between ROA and BB, NPL and BB, was found as negative and significant. The Return on Equity ROE and BB relationship was found positive and significant that shows that increase in ROE is better for credit growth. In other words, the Return on Equity supports the credit growth. Similarly, the relationship of GDP and Bank Lending Behavior is positive and significant. Hence, economic growth of a country support or enhance the lending growth of commercial banks. The results are supported by literature. From previous works, it is concluded that found that the relationship between Banking Behavior and Gross Domestic Product is positive and considerable. (Alihodžić and Ekşi, 2018). Hence from above results it is concluded that profitability on assets is not affecting the credit growth of the bank and earning on equity has positive impact. The economic growth is beneficial for commercial banks as it causes the growth of lending and rises earning. The stuck-up loans are negative for credit growth and increasing NPL means less quality assets are being booked and hence it will deteriorate the credit growth. The moderator variable Interest Rate (IR) was applied for all relationships of independent variables on dependent variables. IR and ROA (IR\*ROA) has positive and not significant relationship. Interest Rate (IR) and Return on Equity (IR\*ROE) impact is positive and not significant. Similarly, Interest Rate and Non-Performing Loan (IR\*NPL) is also positive and insignificant. The relationship of Interest Rate and Gross Domestic Product (IR\*GDP) is also found positive and insignificant. Hence, mediating variable Interest Rate (IR) has no impact on any relationship of this study.

**Keywords:** ROA, ROE, NPL, GDP, BB, IR, Pakistan.

## **125. When Wellen's Syndrome Meets Brugada Phenocopy: A Case Report**

**Syed Haseeb Raza Naqvi FCPS Cardiology <sup>1</sup>**

<sup>1</sup> Chaudhry Pervaiz Elahi Institute of Cardiology, Multan, Pakistan

### **ABSTRACT**

Ischemic Heart Disease is one of the leading causes of sudden cardiac death among adults. Recently increased number of sudden cardiac death has been seen among young populations. ECG is the basic modality to pick such diseases. This case report presents a 37-year-old young man who presents with chest pain. ECG showed Brugada pattern, a channelopathy, leading to suspicion of Brugada Syndrome. Serial ECGs showed dynamic changes in T wave, turned out to be Wellens syndrome, an ischemic variant. Coronary Angiogram showed a critical lesion in proximal Left anterior descending artery. Percutaneous Intervention was done with TIMI grade III flow. Later on, Brugada pattern on ECG disappeared making it a brugada phenocopy. ECG is a very useful marker in diagnosing the ischemic events. The importance of serial ECGs must be reinforced in clinical setting leading to proper diagnosis and in turn effective management of the diseases.

**Keywords:** Wellen's Syndrome, Brugada Phenocopy, Ischemic Heart Disease, ECG.

## 126. Removal of Aqueous Acid dye using biomass from desert plant stems

Warda Hassan<sup>1</sup>, Sajida Noureen<sup>2</sup>, Mujahid Mustaqeem<sup>2</sup>, Tahira Saleem<sup>1</sup>

<sup>1</sup>The Women University, Multan, Multan (60000), Pakistan.

<sup>2</sup>The Islamia University of Bahawalpur, Bahawalpur, (63100) Pakistan.

### ABSTRACT

The capacities, mechanisms and potential of low cost *Haloxylon recurvum* desert plant stems (HRS) for the removal of acid brown354 dye from aqueous solution were investigated. Fourier transformed infrared spectroscopy (FTIR), scanning electron microscopy (SEM), thermal and elemental analysis was used for characterization of adsorbent before and after sorption of dye. The equilibrium sorption capacity of the biomass increased with increasing the initial dye concentration. The extent of dye removal with temperature as well as the particle size of the biomass was also studied.  $\Delta G^\circ$  and  $\Delta H^\circ$  indicated the spontaneous, feasible and exothermic nature of the sorption process. The studies indicated that the HRS biomass was very attractive material for removing the anionic dye from dyed effluents than many of those reported in the literature.

**Keywords:** Helaxylon recurvum plant stem, Acid Brown 354, desert plant, Removal of anionic dye.