

# RESEARCH OUTLOOK 2013

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Learning Resource Center  
University of Management and Technology

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## Foreword

The year 2013 was a major milestone in the history of UMT as it marked 24 years of its relentless efforts geared towards enlightening human beings with high-quality education. The University embraced the challenges of shouldering its mandated responsibility of research and development in pursuit of intellectual stimulation. We have been successful in adding to the sum total of the world's knowledge available. The preceding years witnessed UMT collaborations with the public and the private sectors which acted as the basis for development.

We are proud to present the third edition of UMT Research Output; it is yet another demonstration of UMT's commitment and creativity characteristic of a comprehensive research based university. This snapshot of the scholarly work in *UMT Research Outlook 2013* is deeply rooted in the theme for this issue **Exploring New Horizons**. It advocates the importance of knowledge sharing. Seasoned researchers enabled early career research enthusiasts to undertake scholarly work. This has marked an illuminating appearance in this edition. Three years on, UMT Research Outlook has passed through a makeover and re-visualized electronic version, with extended content-streaming. It incorporated basic principles suggested in the discipline of information science and provided an opportunity to influence remarkable improvements in the scholarly work at UMT.

Research is not only just a human intellectual exercise but also one of the driving forces advancing nations for sustainable development in all spheres of life. UMT's research landscape is amazingly rich and shaped purposeful outcomes in realism of the issues confronting sustainable development.

It is particularly encouraging to note that research culture has started taking roots and developing definite shape in the local constituency. Research community at UMT is aiming high for making interdisciplinary publication while addressing a wide range of subject matter in key areas. The research metrics of UMT is getting stronger and rapidly escalating. The number of research work in one calendar year is flourishing reasonably well. The full spectrum is at best reflecting qualitative and quantitative research methodologies in the wide range of issues covered and discussed. Enhancing research capacity of the learners to keep the research momentum on the go is central to the University goal.

We congratulate UMT research community on for the volume of scholarly work done by them. LRC appreciates and takes this opportunity to pay them the best compliment, which would certainly make a significant contribution to our quest for quality research work.

Academics and research are vital to institutes of higher education. Ranking of the universities are directly tied to research work. University ranks depend largely on how many research papers get published in HEC approved journals. The more the research outputs are published, the higher the ranking of the university. This is how the academic's research output is much more important to universities. As a direct result, faculty needs to play a dual role for their professional and institutional development. UMT has therefore crafted a instrument to link the promotion of academicians with their research contribution in HEC approved journals, employing incentive strategy to boost scholarly outputs. The standard would certainly help to further quality research; consequently a separate budget and transparent reward mechanism are established for excellence in research. Contributing to academic progress is mutually beneficial. This decisive factor awards top marks.

Library as a strategic partner of UMT Community in research fosters learners to get a rating via its Researcher Evaluation and Rating (RE & R). The publication of articles in Journal Citation Report Index-JCR is a vital element of this initiative. We also advance ongoing research in areas of strategic importance, facilitating them for acquiring information resources, providing tailored programs that combine both theoretical and experimental approaches of learning and formative action. We look forward to the opportunity work with faculty to establish collaborative research programs and bringing out research publications.

In the years to come, we foresee that UMT Research Output will establish itself in the local and global arena. The name of university would be at the higher ranks of URAP's inventory. This year a few of UMT community members are also honored with international recognition by being indexed in Thomson Reuters' Journal Citation-JCR Index. We hope it will gather momentum with each passing day. Research community at UMT has come a long way, still a long way to go.

**Muhammad Rafiq Awan**  
Chief Library Officer

#### Journal Articles

1. Hassan, M. S., Wajid, A., & Mamoon, D. (2013). Some non price factors that fend off unemployment in Pakistan. MPRA Paper.

**Abstract:** The study empirically analyzed the impact of financial development; foreign direct investment and urban population as share of total population on unemployment in Pakistan for the period from 1973 – 2010. Empirical findings of this study suggest that financial development does reduce unemployment significantly in the short run and in the long run. Foreign direct investment reduces unemployment in the long run but, it increases unemployment in the short run. Moreover; the urban population as share of total population is significantly increasing unemployment in the long run, whereas, it reduces unemployment in the short run.

**Key Words:** Pakistan; Financial Development, Unemployment, Foreign Direct Investment, and Urbanization

2. Hassan, M. Hassan, M. S. & Mahmood, H. (2013). An empirical inquisition of the impact of exchange rate and economic growth on export performance of Pakistan. *Middle-East Journal of Scientific Research*, 14 (2), 288-299.

**Abstract:** The role of international trade in economic development is very important. International trade is a potential source to increase the world production of goods and services. All the trading nations get benefits of increased world production caused by international trade. The present study empirically analyzed the impact of exchange rate and economic growth along with some other important macroeconomic factors on exports performance of Pakistan by using time series data. The study applied the Augmented Dickey-Fuller (ADF) Unit Roots Test to check the stationarity of data series. Autoregressive distributed lag model is used to estimate the long run relationship among the variables, followed by Unrestricted Error Correction Model (UECM).

Empirical results based on ARDL bound testing approach to co-integration show that there exist a long run equilibrium relationship between Pakistan exports performance and its factors. In this study; Exchange rate, gross domestic production and trade openness have positive and significant impact on export performance, whereas role of foreign direct investment in determination of exports performance of Pakistan seems to be insignificant according to our analysis. In the end, the estimates of labor force indicate the higher growth of labor force along with lack of skills leads to contribute adversely on export oriented sectors where skilled labor force is required.

**Key Words:** Pakistan Exports Exchange Rate and Economic Growth

3. Hassan, M. Mahmood, H., & Hassan, M. S. (2013). Consequences of worker's remittances on human capital: An in-depth investigation for a case of Pakistan." *Middle-East Journal of Scientific Research*, 14(3), 443-452.

**Abstract:** Purpose: This paper aims to empirically investigate the consequences of worker remittance son human capital formation in case of Pakistan. Methodology: In order to achieve the target of this study; Autoregressive Distributed Lag (ARDL) Bounds Testing Approach is used for the period from 1981-2011. Findings: The findings of this study have exposed that worker's remittances have an adverse impact on human capital formation. The coefficient of worker's remittances is significant at 5 percent level of significance. One important justification for the deteriorating impact of worker's remittances on human capital formation is the negligence of parental care. Particularly, the absence of father or any other close relative from home leads to situations where there can be no checks on the outside home activities of the children. Also, the cultural constraints in the country restrict mothers or any female member of the household to go outside to look after their children's activities. Therefore; the positive impact of worker's remittances in the form of inflow of income is offset by the adverse impact of the negligence of the parental care and hence, human capital is showing adverse performance rather improving. Originality/ Novelty: There is hardly any empirical study which investigates the consequences of worker's remittances on human capital formation in case of Pakistan. This is an attempt which may fill this gap.

**Key Words:** Pakistan; Worker's Remittances; Human Capital; Foreign Direct Investment.

4. Kalim, R., & Hassan, M. S. (2013). What lies behind fiscal deficit: A case of Pakistan? *Transylvanian Review of Administrative Sciences*. 40 E, 96-113. (JCR HEC Approved **Impact Factor 0.380**)

**Abstract:** The article aims to investigate some of the important factors contributing to the fiscal deficit in Pakistan for the period of 1976 to 2010. International trade, economic growth, total debt servicing and broad money supply are considered as foremost factors affecting fiscal deficit in Pakistan. The empirical findings reveal that only economic growth has an insignificant impact on fiscal deficit in the long run but has significant impact in the short run. Whereas, all other factors such as international trade, total debt servicing and broad money supply affect fiscal deficit significantly in both short run as well as in the long run. Moreover, it is found that there exists univariate Granger causality which runs from economic growth to fiscal deficit, from total debt servicing to fiscal deficit, and there exists vicariate causality between money supply and fiscal deficit in the short run. Also, in the long run all the factors Granger cause to fiscal deficit. The study has also found the existence of joint causality among fiscal deficit, trade, economic growth, total debt servicing and money supply.

**Keywords:** Pakistan; fiscal deficit; economic growth; total debt servicing; international trade broad money supply

5. Shahbaz, M., Hooi Lean, H., & Kalim, R. (2013). The impact of foreign direct investment on stock market development: evidence from Pakistan. *Ekonomika Istraživanja*, 26(1), 17-32. (JCR HEC approved, **Impact Factor 0.380**)

**Abstract:** Developing countries are witnessing changes in the composition of capital flows in their economies due to the expansion and integration of the world equity market. This paper investigates the impact of foreign direct investment on the stock market development in Pakistan. The key interest revolves around the complementary or substitution role of foreign direct investment to the development of stock market. ARDL bounds testing approach to co-integration and ECM are employed for the analysis. Our results support the complementary role of foreign direct investment to the stock market development in Pakistan. Moreover, domestic savings, income and inflation are the other macroeconomic variables that affect the development of stock market in Pakistan.

**Keywords:** Stock Market de- Foreign Direct In- Pakistan- Complementary- Co-integration

6. Ahmad, N., & Kalim, R. (2013). Changing Revealed Comparative Advantage of Textile and Clothing Sector of Pakistan: Pre and Post Quota Analysis. *Pakistan Journal of Commerce and Social Sciences*, 7 (3). 534- 558. **(HEC Approved Local Journal)**

**Abstract:** Many Asian countries have been beneficiaries of quota abolition for textile and clothing sector since 2005. After the implementation of the Agreement on Textile and Clothing (ATC) in December 2004, member countries of World Trade Organization (WTO) have quota-free trade except People's Republic of China (PRC). It was expected that Pakistan will be beneficiaries in textile and clothing due to expected superior export performance in this sector. Therefore, this study aims estimating revealed comparative advantage (RCA) of textile and clothing sector of Pakistan at HS-2digit level and SITC-3 digit level. It reveals Pakistan has comparative advantage in textile sector and low comparative advantage in clothing sector. Further, it analyzes RCA of textile and clothing sector during the period of pre and post quota and concludes that comparative advantage of Pakistan in textile and clothing sector has been declined during 2011-12.

**Keywords:** revealed comparative advantage; agreement on textile and clothing; comparative advantage; normalized revealed comparative advantage; China; India; Bangladesh; Pakistan

7. Mamoon, D., & Murshed, M. S. (2013). Education Bias of Trade Liberalisation and Wage Inequality in Developing Countries. *Journal of International Trade and Economic Development*, 22(4), 572-604. **(JCR HEC approved, Impact Factor 0.13)**

**Abstract:** The aim of this article is to examine the impact of increased trade on wage inequality in developing countries, and whether a higher human capital stock moderates this effect. We look at the skilled–unskilled wage differential. When better educated societies open up their economies, increased trade is likely to induce less inequality on impact because the supply of skills better matches demand. But greater international exposure also brings about technological diffusion, further raising skilled labour demand. This may raise wage inequality, in contrast to the initial egalitarian level effect of human capital. We attempt to measure these two opposing forces. We also employ a broad set of indicators to measure trade liberalization policies as well as general openness, which is an outcome, and not a policy variable. We further examine what type of education most reduces inequality. Our findings suggest that countries with a higher level of initial human capital do well on the inequality front, but human capital which accrues through the trade liberalization channel has inequalitarian effects. Our results also have implications for the speed at



which trade policies are liberalized, the implication being that better educated nations should liberalize faster.

**Keywords:** integration; trade liberalization; wage inequality

8. **Maryam, A., & Hassan, M. S. (2013).** Human Capital: Is it Beneficial for Trade Openness in Pakistan? *Middle-East Journal of Scientific Research*, 17(7), 965-975.

**Abstract:** This study is an attempt to examine the impact of human capital; exchange rate and gross national income on trade openness in Pakistan for the period from 1976 – 2011. The findings of the study conclude that economic growth in the form of per capita gross national income has positive and significant impact on trade openness in both short run and long run in Pakistan indicating that growth led trade hypothesis works in Pakistan in the both periods. Moreover; it has also found that human capital in the form of per capita education expenditures have significant and positive impact on trade openness indicating that human capital in the form of per capita education expenditures led trade hypothesis also works in Pakistan in both periods. Afterwards; the study has found that exchange rate has significant but negative impact on trade openness in both short run and long run in the both models in Pakistan. Finally; the estimates of CUSUM and CUSUM square have exposed that there does not exist any structural instability over time in the both models of the study.

**Keywords:** Pakistan; Trade Openness Human Capital Gross National Income Exchange Rate ARDL Bounds Testing Approach

## Conference Papers

9. **Asghar, A. (2013).** Exploring the dark side of knowledge management (KM) tactics. Paper presented at 3rd International Conference on Business Management (ICoBM), UMT, Lahore–Pakistan.

**Abstract:** The field of knowledge management is being approached from variety of levels in which the dark side of knowledge management is almost neglected area, particularly in the context of Pakistan. This study, however, provides a fresh inquiry never taken before. Evidences are provided from all walks of life: social, economic, political, government, media, as well as corporate. Utilizing the authentic print media reports along with the model of tactics on dark side of knowledge management given by Alter (2006), this paper focuses upon the distortion, suppression, and misappropriation of knowledge during creating, acquisition, refining, storing, retrieving, distributing, and presenting knowledge. Content analysis of these reports has been administered to present the dark side of knowledge management tactics within Pakistani context in systematic and logical progression. This study also provides insights for those optimistic knowledge managers and scholars who are ever used to looking at the bright side of knowledge management and ignore the dark sides at the cost of bright sides. Through this study, one can take a contrast while looking at the gloomy and dark side of KM when he confronted with the stark realities of KM facets.

**Key Words:** KM; dark side; Pakistan; distortion; suppression; misappropriation of knowledge.

10. **Ayub, U., Majeed, M., & Murad, H. S. (2013)** Organizational analysis: A case of Kohinoor Weaving Mills. Paper presented at 3rd International Conference on Business Management (ICoBM), UMT, Lahore–Pakistan.

**Abstract:** The purpose of this article is to analyze a real world organization in the light of theoretical framework developed by Lee & Terrence (2003). Recently organizations have become pervasive and dominant and look like puzzling terrain because they lend themselves to multiple conflicting interpretations, all of which are plausible and create confusion. Rich qualitative information that has the ability to change understanding within a time interval can reduce this confusion. Rich information can clarify ambiguous issues with short timeframe to enhance understanding and cover diverse perspectives. These perspectives become formidably difficult to understand and manage due to increase complexities, surprises, deceptiveness and ambiguities. Organizations have changed about as much in the past decade or two as in the previous century. To survive, they had to. Revolutionary changes in technology, the rise of the global economy, and shortened product life cycles have spawned a flurry of activity to design more fluid more flexible organizational forms (Lee & Terrence, 2003). Managers, consultants, and policy makers inspired by a variety of theories put forward by researchers in an effort to change or improve organizations. In the social sciences, several major schools of thoughts have evolved and each has its own concepts and assumptions and espouses a view of how to bring social collectives under control.

**Keyword:** Not Available

11. **Haider, M. I. (2013).** Impact of business education and family background on entrepreneurial potential. Paper presented at 3rd International Conference on Business Management (ICoBM), UMT, Lahore–Pakistan.

**Abstract:** The present study is conducted to investigate the entrepreneurship potential among students from various universities of Pakistan, and also to unveil the fact if educational qualification and family background have any significant impact upon such potential of students. The reason for conducting this study is that entrepreneurship is the key factor in making a country progressive and competitive in the present world's complex global business environment. An endeavor also have been made in this research to point out to the academicians and other stakeholders of educational sector of Pakistan whether or not the present educational system has any significant impact on grooming and developing entrepreneurship potential among the university graduates who are getting business and commerce related education.

**Key words:** Entrepreneurship; Business; Commerce; Education; Motivation; Potential.

12. Hamza, A., **Ahmed, W., & Mobin-ul-Haque. (2013).** Shafi Reso's dilemma of strategy formulation in stern competition. [Conference Paper]. *3rd South Asian Management Research and Case Conference.*

**Abstract:** Abrar Ahmed was concerned. After experiencing solid growth in the first two years of its launch, Resolith was headed for murky waters. Abrar Ahmed had realized in 2005 that the industry would be difficult to navigate, considering the presence of international brands, but the situation had gotten worse recently with the emergence of numerous local manufacturers. The local manufacturers were undercutting Resolith in terms of price while the international players had

their brand names and brand networks doing all the heavy lifting for them. Abrar Ahmed did not want to lower the prices as this would mean compromising on quality and cutting corners, something which Shafi Group did not stand for. With these thoughts and recalling the launch of Resolith, Abrar Ahmed was moving from the CEO's office to the board room, where his marketing and sales team was waiting for him. He was thinking of the time when Resolith's launch didn't put them into such dilemma.

**Keywords:** Not available

13. **Kalim, R. & Hassan, M. S. (2013).** Military expenditure and poverty in Pakistan: a complex phenomenon. Paper presented at 3<sup>rd</sup> International Conference on Business Management (ICoBM), UMT, Lahore–Pakistan.

**Abstract:** This article investigates the impact of military expenditures on poverty along with inflation, industrialization, service sector, and foreign direct investment for both long term and short term. An effort is made to find out the role of military expenditure in poverty elimination. The question to be addressed is that whether military expenditure is pro-poverty or anti-poverty in Pakistan. A time series analysis is made for the period of 1972-2009. The problem of unit root is inspected by applying Ng – Perron (2001) test; the strength of relationship between military expenditures and poverty in the light of control variables is investigated by using Johansen and Juselius (1990), the long term coefficients are examined by using Ordinary Least Square Method and short term dynamics are computed by applying Error Correction Mechanism. The results show that military expenditures and inflation are significantly elevating poverty in both long term and short term analysis while the growth of industrial and service sectors help in reducing poverty in Pakistan.

**Key Words:** Pakistan; Military Expenditures; Poverty, Inflation; Industrialization; Service Sector; Foreign Direct Investment.

14. **Mahmood, K. (2013).** Globalization and the nations state. Paper presented at 3<sup>rd</sup> International Conference on Business Management (ICoBM), UMT, Lahore–Pakistan.

**Abstract:** The term 'globalization' is multi-dimensional. "A globalised world is one in which political, economic, cultural, and social events become more interconnected....by Globalization, we mean the increase of connectedness between societies" (Baylis, et al, 2008:8). As defined by Torres (2001) it is a process of rapid economic integration among countries driven by the liberalization of trade, investment and capital flows, as well as technological change. In other words globalization is intensification of economic, social and cultural relations across international borders. Therefore, globalization has led to the enhancement of interconnectedness and interdependence of countries. The interdependence is related to flow of capital and technology. The rapid dominance of globalization can be seen during the period of liberalism of the 19th century, the relative stability after the World War I and the golden years of the 1950s and 1960s. Towards this end, the WTO (World Trade Organization) was formed as a reincarnation of the ITO (International Trade Organization) after the World War II. With its formation, the principles of liberalism, multilateralism and nondiscrimination were achieved. This then shows a tendency towards globalism (Sugiura, 1999).

**Keyword:** Not Available

15. **Shehzadi, I. & Azhar, S. M.** (2013). Human resource outsourcing. Paper presented at 3rd International Conference on Business Management (ICoBM), UMT, Lahore–Pakistan.

**Abstract:** Outsourcing has gained a great impetus during the last some years. There are many reasons to outsource the goods and services. The concept of Human Resource Outsourcing facilitates a firm to rivet its attention to core business. It is also used to minimize the complexities to cope with human resource activities more precisely. In Pakistan, the concept of Human Resource outsourcing is in its inception stage as it is not very much in practice. Organizations are outsourcing Human Resource but only the activities and functions, which are very much essential to performed. Most of the organizations are unaware from the factual essence of this idea that it is very cost productive and helps to gain competitive advantage. Keeping these drawbacks, this study is carried out to discover the reasons of HR Outsourcing in the Pakistani business scenario.

**Keyword:** Not Available

16. **Wajid, A. & Kalim, R.** (2013). The impact of inflation and economic growth on unemployment. Paper presented at 3rd International Conference on Business Management (ICoBM), UMT, Lahore–Pakistan.

**Abstract:** This study is conducted to explore the impact of inflation and economic growth along with trade openness and urban population on unemployment for a case of Pakistan for the period from 1973 – 2010. This study uses Augmented Dickey Fuller (1981) Test to test unit root problem and in order to find out the long run relationship among unemployment; inflation, economic growth, trade openness and urban population as share of total population, we have applied Johansen – Juselius (1990) Maximum Likelihood Approach. This study concludes that inflation significantly increases unemployment in the long term; economic growth has a significant adverse impact on unemployment in the long run and in the short run respectively, and the impact of trade openness on unemployment is positively and insignificant in the long run but this impact becomes significant in the short run. Finally, the findings of the study sheds light on the impact of urban population as share of total population on unemployment for both long run and short run, and it has found that urban population as share of total population has an adverse impact on unemployment in the long run as well as in the short run.

**Key Words:** Pakistan; Unemployment, Inflation; Trade Openness; Real GDP Per Capita; Urban Population as share of Total Population.

17. **Zaheer, S.,** (2013). Consumer behavior: Buying a cell phone. *Asian Journal of Management Cases: Second International Conference*, For presentation only.

**Abstract:** It was 7<sup>th</sup> January 2013, first Monday of the year and Areeb was going towards his university from his office as he had to attend a class of his BBA's last semester. While traveling his mind was on many things after all he was on the verge of completing his under graduation from a prestigious university in Lahore so he was thinking about the last projects, moreover he had established his own business since 2012 (last year) and it was also consuming more and more time

as his sales were gradually rising, however, despite all this, nowadays, his thoughts were overshadowed by the notion of next mobile phone that he would be buying.

**Keywords:** Not available

### Books/Book Chapters/Book Reviews

18. **Raouf, A., & Yusuf, I. (2013).** *Quality Management: A Customer Driven Approach*. Lahore: University of Management and Technology. P. 77

**Abstract:** Not available.

**Keywords:** Not available

### Department of Quantitative Methods

#### Journal Articles

19. **Siddiqi, A. F. (2013).** Important determinants of child labor: A case study for Lahore. *Journal of Economics and Sociology*, 72 (1), 199-221. (JCR HEC approved, **Impact Factor 0.389**)

**Abstract:** Child labor is a persistent problem both for developing and developed countries. Academic literature holds a household responsible for this phenomenon where poverty, literacy level, and the de facto demography are considered important. A factor model is attempted in this study to investigate dynamics of child labor in a society in terms of these household characteristics. The model reveals that household-poverty-driven factors are the most serious while the household demography is the second most serious factor in the dynamics of child labor in Lahore. Shockingly, household literacy does not have any role to play, at least not in Lahore. The results will help policymakers to work in the domain of poverty to mitigate child labor, and also urge them to align societal factors, which shape household demography.

**Keywords:** Not available

### Department of Management

#### Journal Articles

20. **Shahzad, K., Azhar, S., & Ahmed, F. (2013).** A Hidden Threat: Work Stress among Business Managers in Pakistan. *Journal of Economics and Management*, 7(1), 150-171.

**Abstract:** This paper aimed to identify the significant sources and level of work stress experienced by the frontline, middle, and senior level business managers in Pakistan. Six factors namely role ambiguity, role conflict, quantitative role overload, qualitative role overload, career development, and responsibility for others were used as major antecedents of work stress in this study. Study used quantitative strategy and cross-sectional survey method for data collection from 456 respondents belonging to front line, middle, and senior managerial positions from 30 randomly selected organizations operating in private sector of Pakistan. Results revealed that 81% of the respondents have been exposed to moderate level of work stress. Responsibility for others and

concern for career development were viewed as factors causing relatively greater amount of stress at workplace. Role ambiguity and role conflict were viewed as factor causing relatively least amount of work stress among respondents. Significant differences between different demographic groups for most of the stressors were also found. Since no study identifying sources and level of work stress in Pakistan has been conducted so far, importance of this study lies in highlighting the exact antecedents of work stress and amount of stress caused by them in Pakistan.

**Keywords:** Measuring work stress; Sources of work stress; Stressors; Work Stress among Gender; Pakistan

21. **Syed, A. R., Zainab, A., Zia, S. A., & Shahzad, K. (2013).** Pakistan Foods and Beverage Company. *South Asian Journal of Business and Management Cases*, 2(2), 151-162.

**Abstract:** Pakistan Foods and Beverage Company (PFBC), having a workforce of 4500 people and 25 per cent annual growth, has become a leading company in the Confectionary and Food industry of Pakistan. The perils of managing growth are catching up the organization with extremely high employees' separation rate, lower productivity, endless complaints and grievances, lack of HR management systems and a 'one man' show approach adopted by its owners. The CEO now wants to strategically realign and incorporate the organization-wide cultural change according to his Vision 2020 and revamp things to make it great without leaving good.

**Keywords:** Not available

22. **Shahzad, K., Ahmed, F., & Ghaffar, A. (2013).** Personality and Gender as Predictors of Academic Choices: A Comparative Study of Business and Non-Business Students. *Studies*, 2(2).

**Abstract:** The impact of personal factors on academic and professional preferences has been the topic of a number of researches. But there is a dearth of studies on comparative analysis of such traits with reference to academic choices of business and non-business students. This study aims to identify if gender and personality explain difference in business and non-business students' academic programs choices. 254 undergraduate students from schools of business and economics (business) and schools of engineering and technology (non-business) responded to this survey. Results revealed the significant impact of big five personality traits on students' selection of business or non-business degree programs. Students from business major scored high for extroversion and emotional stability, but they scored low on agreeableness, conscientiousness, and openness. The difference in business and non-business academic preferences in terms of gender was also found significant

**Keywords:** Personality Traits, Big Five Model. Gender differences, Business majors, Non-Business Majors

23. **Aslam, M., Shahzad, K., Syed, A. R., & Ramish, A. (2013).** Social Capital and Knowledge Sharing as Determinants of Academic Performance. *Journal of Behavioral & Applied Management*, 15(1).

**Abstract:** Many researchers argue that career success of various individuals can be attributed to the effective use of social capital. Social capital theory proposes that the network of relationships support the people in performing social affairs and advancing in their careers. A considerable body of knowledge exists that examines the role social capital plays in the success of individuals and

organizations. However, not many have focused on the social capital development process in the higher education institutions. This understanding is vital because higher educational institutions are the breeding grounds of the behaviors that help the students to excel in their professional lives. Current study empirically examines the relationship between social capital and knowledge sharing, and how knowledge sharing impacts academic performance. For this purpose multiple linear regression analysis has been performed. The results of the analysis highlighted various aspects of the relationship between social capital, knowledge sharing and academic performance. Understanding how students learn to share knowledge in their respective social networks and the motivation behind this knowledge sharing, can help the university authorities in identifying the steps that can facilitate the process of knowledge sharing which in turn can lead to enhancement in the quality of the learning process.

**Key Words:** Social Capital, Knowledge Sharing, Academic Performance, Higher Education

## Conference Papers

24. **Syed, A. R. & Kausar, A. R. (2013).** Creating multiple fits between business strategy, knowledge strategy and knowledge transfer activities. Paper presented at 3rd International Conference on Business Management (ICoBM), UMT, Lahore–Pakistan.

**Abstract:** Knowledge management has gained immense popularity within the last decade. Knowledge is considered to be one of the key strategic resources that firms possess. It is undisputedly accepted that knowledge resource can help a firm attain competitive advantage. Knowledge Management is gaining momentum as companies are incorporating various knowledge management strategies into their overall strategic postures. Although organizations are undertaking many initiatives of knowledge management, they are still unsure which knowledge strategies should be fitted with different business strategies so that firm's performance can be enhanced. This conceptual paper tries to identify the right fit between knowledge strategies with business strategies, and proposes; that fits, at two levels should be created i.e. Level 1 fit between business-knowledge strategies and Level 2 fit between business-knowledge (BK) strategies and Knowledge-transfer (KT) activities. It is argued that only by creating these two levels of fits will a firm be able to achieve superior performance.

**Key Words:** Knowledge Management; Knowledge Transfer activities; Miles and Snow Strategic Orientation; Strategic Fit; Tacit and Explicit Knowledge; Human and System strategy of KM.

25. **Kausar, A. R. & Yazdani, N. (2013).** Ikujiro Nonaka: A KM Guru. Paper presented at 3rd International Conference on Business Management (ICoBM), UMT, Lahore, Pakistan.

**Abstract:** This theoretical paper traces Ikujiro Nonaka's managerial writings over a period of 25 years from 1984 to 2009. It highlights that Nonaka had no intention of discovering a separate field by the name of Knowledge Management. From the very outset he was only highlighting the philosophical differences between Japanese and Western ways of managing the work. It was during this discourse that he developed the SECI Model which formed the backbone of the KM field.

**Keywords:** Knowledge Management, SECI Model, Ikujiro Nonaka, Hypertext Organizations, Middle-Up-Down Managing.



### Books/Book Chapters/Book Reviews

26. Seth, N. J., Bajwa, S. U., Asif, M., & **Shahzad, K.** (2013). *New Frameworks for Cluster Development: Small and Medium Enterprises Development Authority (SMEDA) Ministry of Industries.*
27. **Shahzad, Khuram.** (2013, July-September 20(3)).Competitive Strategy: Techniques for Analyzing Industries & Competitors, by Michael E. Porter. *South Asian Journal of Management*

### Department of Operations and Supply Chain

### Journal Articles

28. **Yusuf, I., & Raouf, A.** (2013). Reverse logistics: an empirical study for operational framework. *Proceedings of the Pakistan Academy of Sciences*, 50 (3), 201–210 (**X category HEC approved local Journal**)

**Abstract:** This paper presents framework of reverse logistics optimizing the stakeholders' gain, social gain, economic gain and environmental gain. It identifies the roadblocks that prevail in recycling industry and describes various types of returns and wastes. Framework of the reverse logistics is evolved on the basis of actual happening of the items shown in table 1-4 disposed off from industries shown in table 6. The rejected items require environmental disposal passing through the different phases described in flow of operational framework. An operational framework of reverse logistics is developed studying fifty organizations. In addition three best practices of reverse logistics are proposed by consolidating the experiential information and rich hands on industrial experience in supply chain and reverse logistics area. The research has proposed the Social, Stakeholder, Economic & Environmental (SSEE) sustained gain model optimizing the benefits of stakeholders and highlights the variety of waste and its operational methodology in Pakistani industry. The proposed framework does not include the hospital waste, radioactive waste, hazardous materials waste, municipal waste, agricultural waste and cold chain waste like meat, milk, etc. The operational framework is existing way of doing that takes the waste materials from point of origin to the point of recycling. A better understanding of this framework may help researchers and front line managers to develop better, more accurate models for effective and sustainable utilization of waste materials, benefiting organizations and society by simultaneously enhancing the cost effectiveness and improving environmental awareness. The paper provides an operational framework of reverse logistics and 2S2E sustained gain model. Specific applications are examined through empirical research.

**Keywords:** Reverse logistics, supply chain management, operational framework, recycling



**Journal Articles**

1. **Arshad, S.** & Lupulescu, V. (2013). On a class of controlled functional differential inclusions. *Le Matematiche*, 68(1), 53-64.

**Abstract:** The aim of this paper is to establish the existence of solutions and some properties of solutions set for a class of functional differential equations with causal operator under assumption that the equation satisfies the Carathéodory type condition. Also, an application for an optimal control problem is given.

**Keyword:** Causal operator; Differential inclusion; Existence of solutions; Optimal control problem.

2. Asghar, M. N., Akhtar, J., Shafiq, M., Nadeem, I., Ashfaq, M., **Shahid, S.** (2013). GC-MS and antioxidant capacity analyses of cowpea seeds oils, *Nutrition & Food Science*, 43(2), 116-127.

**Abstract:** Purpose – The cowpea plant, being affordable and protein-rich, is considered poor man's meat. The aim of this paper is to undertake a detailed investigation regarding in vitro total antioxidant capacity (TAC) and chemical constituents of the vegetable oils from seeds of this plant, taking its nutritional value into consideration. Design/methodology/approach Vegetable oils of different indigenous cowpea varieties were obtained using soxhelt extraction assembly and subjected to GC-MS analyses and various antioxidant assays including 2,2'-azinobis(3-ethylbenzothiazoline-6-sulphonic acid) (ABTS) radical cation scavenging, ferr, 2,2'-diphenyl-1-picrylhydrazil (DPPH) radical scavenging, total phenolic contents (TPC), lipid peroxidation inhibition, and iron chelation activity. Findings: Various chemical constituents including different hydrocarbons, tocopherols, ketones, fatty esters, estragole and cedrene were identified. TPCs were found to be 5.439, 5.7279, 7.6126, 6.7573 and 10.0591 mg/L gallic acid equivalent for S.A. Dandy, Elite, White Star, CP-386 and FBD Rawan varieties, respectively. Employing ABTS radical decoloration assay a significant linear correlation ( $R^2=0.997, 0.996, 0.997, 0.996$  and  $0.997$  for S.A. Dandy, Elite, White Star, CP-386 and FBD Rawan varieties, respectively) was found between the percent inhibition of ABTS radical cation and the amount of vegetable oils. The percent inhibition of the Fe(II)-Ferrozine complex formation was found to be 29.45, 53.76, 82.91, 86.59 and 57.87 for the same varieties, respectively. Originality/value GC-MS and standard in vitro antioxidative capacity analyses data clearly demonstrated the potency of the cowpea as antioxidant and radical scavenger plant which may be used as a good source of natural antioxidants. The plant seeds may prove a better and cost-effective substitute of expensive food items.

**Keyword:** ABTS; Antioxidant; Cowpea; GC-MS; Lipid peroxidation; Oils; TPC; Vegetable oils.

3. Chang, H., Chuang, L., Guleria, S., & **Yasmin, S.** (2013). Natural products: bioactivity, biochemistry, and biological effects in cancer and disease therapy. *The Scientific World Journal*, p. 1. (JCR HEC approved, **Impact Factor 1.730**)

**Abstract:** The drug discovery for chemoprevention and chemotherapy remains a challenge. Natural products-derived extracts and compounds are frequently reported to discover therapeutic agents for disease and cancer. The overall scenario of this special issue of The Scientific World Journal presents the recent advances in biological function of selected natural products for cancer and disease therapy in terms of crude extracts and components. Some studies describe the bioinformatics tool to help to investigate the field of natural products. The papers by S. Guleria et al. and C.-C. Lee et al. provide the essential oil and/or extracts of herb *Zanthoxylum alatum* and *Zingiber officinale* for its antioxidant and antimicrobial properties, respectively. O. O. Igbinosa et al. and C.-C. Lee et al. provide the animal experiments using extracts from *Jatropha curcas* (Linn) leaf and from supercritical carbon dioxide extracted ginger, respectively. Three studies (F. M. Al-Jasass and M. S. Al-Jasser, X.-W. Chen et al., and C.-Y. Lo et al.) focus on biological functions of the compounds from Saudi Arabia herbs, Chinese herb *Huang Lian* (*Rhizoma coptidis*), and from *Alpinia galangal*, respectively. Further, C.-Y. Yen et al. provide the toxicological study for cardiotoxin III in growth inhibition of oral cancer. C.-Y. Lin et al. provide a review article for the chemoprevention of cytochrome P450 in oral potentially malignant disorders (OPMDs) patients in terms of betel quid metabolism. S.-S. Liang et al. introduce the novel technique for online monitoring oxidative products and metabolites of nicotine based on tandem mass spectrometry. Some papers introduce the bioinformatics methods or resources to study or review the natural products-related studies. L. Wang et al. introduce the gene ontology (GO) network for the systems-theoretical analysis of human hepatocellular carcinoma. Y.-C. Lin et al. provide the database (TIPdb) for anticancer, antiplatelet, and antituberculosis phytochemicals from indigenous plants in Taiwan. Three papers (W.-H. Huang et al. and J.-Y. Tang et al.) provide the drug discovery for cancer and disease therapy in terms of RNA editing, alternative splicing, and long noncoding RNAs as well as the summary for their bioinformatics resources.

**Keyword:** Not Available

4. **Shahid, S.,** Riaz, T., Abbasi, M. A., Khalid, F., & Asghar, M. N. (2013). In vitro assessment of protection from oxidative stress by various fractions of *Mazus Pumilus*. *Journal of the Chemical Society of Pakistan*, 35 (3), 593-598. *(HEC approved, X category local Journal)*

**Abstract:** Bioactive compounds in food have been shown to maintain human health. Therefore the aim of this investigation was to evaluate antioxidant potential of an edible herb *Mazus pumilus* (Burm. f.) Steenis by spectrophotometric methods. Methanolic extract of the herb was obtained on Soxhlet apparatus, and sequentially fractionized with organic solvents of increasing polarity. The antioxidant potential of all these fractions was evaluated by four methods: 1,1-Diphenyl-2-picrylhydrazyl (DPPH) free radical scavenging activity, total antioxidant activity, Ferric reducing antioxidant power (FRAP) assay and ferric thiocyanate assay along with determination of their total phenolics. The results revealed that n-butanol fraction exhibited highest percent inhibition of DPPH radical as compared to other fractions. It showed  $80.42 \pm 1.68$  inhibition level, % of DPPH radical at a concentration of  $60 \mu\text{g ml}^{-1}$ . The  $\text{IC}_{50}$  value of this fraction was  $28.79 \pm 1.35 \mu\text{g ml}^{-1}$ , relative to ascorbic acid, having  $\text{IC}_{50}$   $58.84 \pm 0.89 \mu\text{g ml}^{-1}$ . It also showed highest total antioxidant activity ( $1.01 \pm 0.08$ ) as well as highest FRAP value ( $626.83 \pm 0.39 \text{ TE} / \mu\text{M ml}^{-1}$ ), highest total phenolic contents ( $88.30 \pm 1.09 \text{ GAE} / \text{mg g}^{-1}$ ) and highest value of inhibition of lipid peroxidation ( $53.91 \pm 1.21$

%) as compared to the other studied fractions. The results obtained from this study suggest that *Mazus pumilus* is a valuable herb, which due to the presence of larger quantities of antioxidant compounds inhibits the oxidative stress mechanism that lead to degenerative diseases.

**Keyword:** *Mazus pumilus*; DPPH assay; total antioxidant activity; reducing power; total phenolics; inhibition of lipid peroxidation.

5. **Siddique, S., Shah, Z. H. Shahid, S. & Yasmin, F. (2013).** Preparation, characterization and antibacterial activity of ZnO nanoparticles on broad spectrum of microorganisms. *Acta Chimica Slovenica*, 60 (3), 660-665. (JCR HEC approved, **Impact Factor 1.135**)

**Abstract:** Nano particles have received increased attention regarding their potential utility in biomedicine. In this study, we have investigated the antibacterial activity of ZnO nano particles with various particle sizes. ZnO nano particles were synthesized by conventional precipitation method using zinc sulphate and sodium hydroxide as precursors followed by the calcinations of precipitates at 350 °C for 6 h (sample A) and 550 °C for 2 h (sample B). The products were characterized by X-ray diffraction (XRD) analysis and morphology of the particles was evaluated by Scanning Electron Microscopy (SEM). Antibacterial activities against four different microorganisms were evaluated by determining the minimum inhibitory concentration (MIC), minimum bactericidal concentration (MBC) and zones of inhibitions using different concentrations of ZnO nano particles. The antibacterial activity was directly proportional to the concentration and inversely proportional to the particle size in all the microorganisms; moreover Gram positive bacteria were generally more affected than Gram negative bacteria. The stability of ZnO nano particles combined with potent antibacterial properties favours their application as anti-bacterials against broad spectrum of microorganisms.

**Keyword:** Zinc oxide nano particles, minimum inhibitory concentration, minimum bactericidal concentration, X-ray diffraction analysis

## Conference Papers

6. **Ali, S. F., Fatima, A., Nazar, N., Muaz, M., & Idrees, F. (2013).** *Human fall detection*. Paper presented at the 16 International Multi Topic Conference (INMIC) 2013, University of Engineering and Technology, Lahore 54890, Pakistan.

**Abstract:** Fall-induced injuries are common in the elderly population. Delay or lack of medical care after the occurrence of a fall often results in injuries, sometimes severe, and can also lead to death in some cases. Falls, therefore, are critical occurrences for the elderly. Detecting falls automatically, as they occur, can lead to better timed medical care which can in turn reduce the subsequent medical complications. In this paper we describe an effective fall detection system based on videos dataset generated using multiple cameras. Approach proposed in this paper outperforms in accuracy as compared to the other existing approach. It uses several images descriptors or features which are fed to a number of classifiers to detect falls.

**Keywords:** Human Fall Detection; fixed camera based; background; foreground.

7. **Salik, M., Ali, S. M., Bhatti, A. A., & Nasir, M. (2013).** Dynamic modeling and grid integration of a Solid Oxide Fuel Cell. Proceeding of the international conference of energy and Sustainability - 2013 NED University of Engineering and Technology, Karachi, Pakistan.

**Abstract:** This article presents an equivalent dynamic model of a Solid Oxide Fuel Cell (SOFC) integrated with utility grid. The proposed dynamic model accounts for the electrochemical and thermodynamic characteristics of SOFC. Effects of temperature variations and fluid flow changes are incorporated in the model. Voltage drops inside a fuel cell are also modeled. This proposed model is further integrated with the utility grid with help of power conditioning unit (PCU). PCU consists of a DC-DC Boost converter and a 3-phase voltage source inverter. The output of 3-phase inverter is fed to the grid with the use of AC link integration. Complete model is formulated in MATLAB-SIMULINK environment. Simulation results clearly depict the behavior of SOFC and also show that SOFC is a potential source for distributed generation purpose. The proposed model formulated here would be helpful for the optimal prediction of characteristics and dynamic operation of SOFC based power plants.

**Keywords:** Dynamic Model; Grid Integration; MATLAB-SIMULINK; PCU; SOFC

8. **Shahid, S. (2013).** In Vitro Assessment of Antibacterial, Enzyme Inhibition and Oxidative Stress Activities of Various Fractions of *Ranunculus sceleratus* 1st International Conference on Applied Chemistry" at GC University, Faisalabad, Pakistan (November 18-20, 2013).

**Abstract:** The aims of the present investigation were to assess the enzyme inhibition, antibacterial and antioxidant activities of various fractions of *Ranunculus sceleratus* Linn. The methanolic extract of plant was partitioned sequentially with solvents of increasing polarity. Enzyme inhibition studies were done against four enzymes i.e.  $\alpha$ -glucosidase, butyrylcholinesterase, acetylcholinesterase and lipoxygenase. It was observed from the results that n-butanol fraction possessed very good activity ( $77.49 \pm 0.94$  % inhibition at 0.1 mg/ml) against  $\alpha$ -glucosidase, as compared with quercetin, a reference standard drug. Its IC<sub>50</sub> value was calculated as  $35.69 \pm 0.93$   $\mu$ g/ml as compared to quercetin (IC<sub>50</sub> value  $16.47 \pm 0.39$   $\mu$ g/ml). Antibacterial activity was checked against five bacterial strains by 96-wells microplate assay using ciprofloxacin, a standard antibiotic, as positive control. Chloroform, ethyl acetate, n-butanol and aqueous fractions showed excellent activity against *Pseudomonas aeruginosa*, (MIC at 7.09, 7.82, 5.62 and 5.26 respectively) which is greater than standard antibiotic ciprofloxacin (MIC 10.03). Ethyl acetate n-butanol and aqueous fraction also showed good activity against *Escherichia coli* (MIC at 10.56, 10.88 and 10.74 respectively). The antioxidant potential of all the fractions was evaluated by different methods. The results revealed that ethyl acetate soluble fraction exhibited highest percent inhibition of DPPH radical as compared to other fractions. It showed  $80.9 \pm 1.23$ % inhibition of DPPH radical at a concentration of 30  $\mu$ g/ml. The IC<sub>50</sub> value of this fraction was  $44.07 \pm 0.76$   $\mu$ g/ml, relative to ascorbic acid, having IC<sub>50</sub>  $58.90 \pm 1.76$   $\mu$ g/ml. It also showed highest total antioxidant activity ( $1.04 \pm 0.03$ ) as well as highest FRAP value ( $238.5 \pm 1.12$  TE  $\mu$ M/ml), highest total phenolic contents ( $97.08 \pm 1.03$  GAE mg/g) and highest value of inhibition of lipid peroxidation ( $53.70 \pm 1.59$ %) as compared to the other studied fractions. The results obtained from this study suggest that *Ranunculus sceleratus* is a valuable herb, which due to the presence of larger quantities of enzyme

inhibition, antibacterial and antioxidant compounds inhibits the oxidative stress mechanism that lead to degenerative diseases.

**Keywords:** *Ranunculus sceleratus* Linn.; Antimicrobial potential; Antioxidant potential;  $\alpha$ -glucosidase, Lipoxygenase; Cholinesterase

9. **Shahid, S.** (2013). Screening of *Abutilon muticum* for Bioactive Constituents, Mineral Contents, Antioxidants and Hepatoprotective activity 13th International Conference entitled "Functional and Medical Foods with Bioactive Compounds: Science and Practical Application", Kyoto Prefectural University of Medicine, Kyoto, Japan, (May 11-12, 2013).

**Background:** The genus *Abutilon* belongs to the family Malvaceae and has about 150 species distributed throughout the Mediterranean to central Asia, particularly in India and Pakistan. Several species of this genus have been used in folk medicines as analgesic and for the treatment of digestive disorders, toothache, arthritis and so forth. *Abutilon muticum*, a species of genus *Abutilon* occurs in plains throughout Pakistan especially more common in Sindh and abundant in the deserts of Cholistan, Bahawalpur. *Abutilon muticum* is traditionally used for analgesic, anthelmintic, hepatoprotective and hypoglycemic properties.

**Keywords:** *Abutilon muticum*, chemical constituent, minerals, hepatoprotective, histopathology, antioxidants

10. **Shahid, S.** (2013). Assessment of Relief to Oxidative Stress by different Fractions of *Mazus*. 12<sup>th</sup> International and 24<sup>th</sup> National Chemistry Conference, Bahauddin Zakariya University, Multan, Pakistan. (October 28-30, 2013).

**Abstract:** The purpose of this study was to evaluate the antioxidant potential of *Mazus pumilus* (Burm. f.) Steenis. Methanolic extract of the whole powdered plant was obtained on soxhlet apparatus, dissolved in distilled water and partitioned with *n*-hexane, chloroform, ethyl acetate and *n*-butanol sequentially. The antioxidant potential of all these fractions and remaining aqueous fraction was evaluated by four methods: 1,1-Diphenyl-2-picrylhydrazyl (DPPH) free radical scavenging activity, total antioxidant activity, Ferric reducing antioxidant power (FRAP) assay and ferric thiocyanate assay along with determination of their total phenolics. The results revealed that *n*-butanol fraction exhibited highest percent inhibition of DPPH radical as compared to other fractions. It showed 80.42 $\pm$ 1.68% inhibition of DPPH radical at a concentration of 60  $\mu$ g/ml. The *IC*<sub>50</sub> value of this fraction was 28.79 $\pm$ 1.35  $\mu$ g/ml, relative to ascorbic acid, having *IC*<sub>50</sub> 58.84 $\pm$  0.89  $\mu$ g/mL. It also showed highest total antioxidant activity (1.01 $\pm$ 0.08) as well as highest FRAP value (626.83 $\pm$ 0.39 TE  $\mu$ M/mL), highest total phenolic contents (88.30 $\pm$ 1.09 GAE mg/g) and highest value of inhibition of lipid peroxidation (53.91 $\pm$ 1.21%) as compared to the other studied fractions. Ethyl acetate soluble fraction also showed good results.

**Keywords:** *Mazus pumilus*, Phytochemical screening, DPPH assay, total antioxidant activity, FRAP value, total phenolics, inhibition of lipid peroxidation.

11. **Shahid, S.** (2013). Screening of natural herb: *Abutilon muticum* for chemical constituents and hepatoprotective effects on CCl<sub>4</sub> induced hepatitis in rabbits. Paper presented at the 17th Annual Green Chemistry & Engineering Conference organized by the American Chemical Society, Washington, USA, June 18-20, 2013.

**Abstract:** Phytochemical studies on the aerial parts of *Abutilon muticum* resulted in the isolation of eight new source compounds, which had not been isolated so far from this investigated source. The compounds isolated were: 3,4',5,6,7-pentahydroxy flavone, 3, 3', 4', 5, 7-penta hydroxy flavone-8-O-β-D-glucopyranoside, 3, 3', 4', 5, 7-pentahydroxy flavone, stigmasterol, benzoic acid, 1-tricosanol, cholesterol and triacontyl palmitate. Aerial parts of *A. muticum* were subjected to proximate analysis. The results obtained were; moisture (8.23%), ash (17.29 %), crude fiber (23.46 %), crude protein (16.13 %) and crude carbohydrate (32.04 %). The ash was also analyzed for its mineral contents which were found to be (mg/100g); aluminium (5.16), cadmium (0.02), calcium (395.23), iron (3.21), lead (0.02), magnesium (193.42), phosphorus (327.13), potassium (443.01) and zinc (21.05). In addition hepatoprotective activity of *A. muticum* was evaluated against hepatic damage in rabbits [Table 1]. The substantially elevated enzyme levels were restored towards normalization by the extracts.

**Keywords:** Not available

### Books/Book Chapters/Book Reviews

12. **Shahid, S.** (2013). Biological and Chemical Investigations of *Abutilon indicum*, Germany: Lambert Academic Publishing.

**Abstract:** The work embodied in this book is mainly concerned with the isolation and characterization of chemical constituents from a terrestrial medicinal plant *Abutilon indicum* L of genus *Abutilon* and its possible biological activities. The isolated compounds were characterized by using various sophisticated spectroscopic techniques. Methanolic extracts of *A. indicum* were subjected to antibacterial activity against four Gram +ve, three Gram –ve bacteria and antifungal activity against three fungi. The extracts had shown significant activity against different microorganisms. The preliminary phytochemical screening for the secondary metabolites in the alcoholic extract of the plant material of *Abutilon indicum* L. revealed the presence of flavonoids, alkaloids, terpenes, saponin, tannins and steroids. Proximate analysis had shown that maximum protein, carbohydrates and fats were present in leaves, less in stems and least in the roots. Essential nutrients Fe<sup>+2</sup>, Na<sup>+1</sup>, K<sup>+1</sup>, Ca<sup>+2</sup> and Mg<sup>+2</sup> were present in significant amounts in different parts of the plant. Epicuticular wax was isolated and analyzed by column and thin layer chromatography

**Keywords:** Not available

### Conference Papers

13. Inam, M., Mohy-ud-Din, A., Bhatti, A. A., Nasir, M. (2013). Characterization of Biodiesel Samples produced from Fresh and Waste Vegetable Oils to evaluate their Feasibility for Power Generation. Paper presented at the Paper presented at the Power Engineering, Energy and Electrical Drives (POWERENG), 2013 Fourth International Conference on, Istunmbol, Turkey.

**Abstract:** The purpose of this paper is to design a system in which the biodiesel prepared from fresh and waste vegetable oil can be converted into useful power output. It is intended that this biodiesel produced may ultimately be a fuel source for the power generation from the generators. The optimal conditions of temperatures and concentration have also been discussed and the criteria to select these parameters have been evaluated.

**Keywords:** biodiesel; transesterification; engine; brake specific fuel consumption; speed

14. Mohy-ud-Din, A., & Inam, M. (2013). GC-MS and HPLC as the Analytical Tools in solving the Taxonomic Controversies of Plants. Paper presented at the International Bhurban Conference for Applied Sciences and Technology.

**Abstract:** The science of chemical taxonomy is used for the classification of plants on the basis of their chemical constituents which are deeply concerned with the molecular characteristics. Five locally available plant taxa of *Solanum nigrum* Complex viz.: *S. americanum* Mill., *S. chenopodioides* Lam., *S. nigrum* L., *S. retroflexum* Dunal and *S. villosum* Mill. were investigated. GC-MS and HPLC were used as the analytical tools to resolve the international taxonomic controversy about these plants. Comparative qualitative and quantitative analyses of these plant samples were undertaken keeping Alkaloids, Flavonoids and Epicuticular wax as potential characters. The glycosides of alkaloids and flavonoids were determined by HPLC whereas their aglycones and epicuticular waxes were analysed using GC-MS. HPLC and GC-MS analyses of these constituents from *S. nigrum* Complex had not been reported previously. Statistical cluster analyses of results grouped taxa into different clusters on the basis of similarity index and Euclidean distance.

**Keywords:** Not available

15. Mohy-ud-Din, A., Inam, M., Bhatti, A. A., & Nasir, M. (2013). *Comparative analysis on the efficiency and engine properties by using biodiesel and fossil diesel*. Paper presented at the 12th International & 24th National Chemistry Conference, Bahauddin Zakariya University, Multan, Pakistan.



**Abstract:** The increase in the demand and prices of petroleum products as well as the environmental concerns resulting from the burning of fossil fuels in electricity production has resulted in focusing on the use of environmental friendly renewable alternative energy resources, like solar, hydro, tidal, wind, geothermal and biomass energy. There has been plenty of research done so far on engine performance and biodiesel production. Biodiesel was produced from fresh oil (BFO) and waste vegetable oil (BWO) on using biofuels for electricity generation. The engine performance tests were conducted with petroleum diesel and biodiesel samples at different loads and variable speeds. On comparing the electrical efficiency of generator and brake specific fuel consumption(BSFC) values, it was observed that less fuel is required for same power output when BFO (0.19kg/kWh) and BWO (0.18kg/kWh) were used in place of petroleum diesel. Moreover, an increase in BSFC values of BFO and BWO as compare to petroleum diesel at different speeds leads to the same interpretation. Higher efficiency and lower BSFC values of BFO (Efficiency: 43.25%; BSFC: 0.19 kg/kWhr) and BWO (Efficiency:41.34%;BSFC:0.2kg/kWh) due to complete combustion and reduction in calorific value of the fuel. In case of BWO, the operational efficiency (41.34%) was found less than the diesel-fueled condition.

**Keywords:** biodiesel; engine; efficiency; brake specific fuel consumption

16. **Nasir, M., & Mohy-ud-Din, A. (2013).** Implementation of radionuclide scanning in medical science. Paper presented at the International Bhurban Conference for Applied Sciences and Technology.

**Abstract:** A radionuclide scan is a way of imaging bones, organs and other parts of the body by using a small dose of a radioactive chemical. There are different types of radionuclide chemicals. The one used depends on which organ or part of the body is to be scanned. Gamma rays are similar to X-rays and are detected by a device called a gamma camera. The gamma rays which are emitted from inside the body are detected by the gamma camera, are converted into an electrical signal, and sent to a computer. A radionuclide scan is used for bone scan, tumor scan, cancer scan, kidney scan, lung perfusion scan, 'myocardial perfusion scan and thyroid scan etc. To detect the gamma photons usually a large crystal of sodium iodide is used in gamma camera. Different radionuclides used with their specific applications are summarized.

**Keywords:** Not available



## Journal Articles

17. Abbas, M. & Ali, B. (2013). Fixed point of Suzuki-Zamfirescu hybrid contractions in partial metric spaces via partial Hausdorff metric. *Fixed Point Theory and Applications*, (1), 1-16. . (JCR HEC approved, **Impact Factor 1.87**)

**Abstract:** Coincidence point theorems for hybrid pairs of single-valued and multi-valued mappings on an arbitrary non-empty set with values in a partial metric space using a partial Hausdorff metric have been proved. As an application of our main result, the existence and uniqueness of common and bounded solutions of functional equations arising in dynamic programming are discussed.

**Key Words:** coincidence point; orbitally complete; common fixed point; partial metric space

18. Munawar, S., Mehmood, A., & Ali, A. (2013). Time-dependent stagnation-point flow over rotating disk impinging oncoming flow. *Applied Mathematics and Mechanics*, 34(1), 85-96. . (JCR HEC approved, **Impact Factor 0.647**)

**Abstract:** The unsteady stagnation point flow of an incompressible viscous fluid over a rotating disk is investigated numerically in the present study. The disk impinges the oncoming flow with a time-dependent axial velocity. The three-dimensional axisymmetric boundary-layer flow is described by the Navier-Stokes equations. The governing equations are solved numerically, and two distinct similarity solution branches are obtained. Both solution branches exhibit different flow patterns. The upper branch solution exists for all values of the impinging parameter  $\beta$  and the rotating parameter  $\Omega$ . However, the lower branch solution breaks down at some moderate values of  $\beta$ . The involvement of the rotation at disk allows the similarity solution to be transpired for all the decreasing values of  $\beta$ . The results of the velocity profile, the skin friction, and the stream lines are demonstrated through graphs and tables for both solution branches. The results show that the impinging velocity depreciates the forward flow and accelerates the flow in the tangential direction.

**Key words:** similarity solution, stagnation point flow, rotating disk, numerical solution

19. Nasir, M., Munawar, S., & Ali, A. (2013). Time-dependent flow in a composite channel with heat transfer. *Journal of Porous Media*, 16(8), 749-756. . (JCR HEC approved, **Impact Factor 0.53**)

**Abstract:** In this article, unsteady oscillatory flow and heat transfer in a horizontal composite porous channel is discussed. The Darcy-Brinkman model is used to develop the governing equations for the flow in a porous medium. The upper plate is oscillating with the constant amplitude while the lower plate is stationary. The viscous and Darcian dissipation terms are included in the energy equation. At the interface of both regions the velocity, shear stress, and temperature profiles are assumed to be continuous. The governing equations for momentum and heat transfer are solved analytically using the series solution in terms of harmonic and nonharmonic functions in both

regions of the channel. The effects of various physical parameters on the velocity and the temperature profiles are analyzed with the help of graphs and tables.

**Key Words:** composite channel, oscillatory flow, heat transfer, interface boundary conditions, analytic Solution

20. Zahid, Z., & Zafar, S. (2013). On the Betti numbers of some classes of binomial edge ideals. arXiv preprint arXiv:1310.3981.

**Abstract:** We study the Betti numbers of binomial edge ideal associated to some classes of graphs with large Castelnuovo-Mumford regularity. As an application we give several lower bounds of the Castelnuovo-Mumford regularity of arbitrary graphs depending on induced subgraphs.

**Keywords:** Castelnuovo-Mumford regularity, Betti numbers, binomial edge ideal.

### Department of computer Science

#### Conference Papers

21. Bhatti, A. A. (2013). Transient and steady state solution of N-dimensional coupled networks and development of equivalent Pi and T matrix networks with distributed parameters. Paper presented at the Power Engineering, Energy and Electrical Drives (POWERENG), 2013 Fourth International Conference on.

**Abstract:** This paper proposes a new computer based method for transient and steady state solution of n-dimensional coupled transmission line networks or communication circuits with distributed parameters. In this method, a novel approach has been developed for formulating and computing the dimensional generalized ABCD parameter matrices, as well as for developing and solving the equivalent n-dimensional coupled T and Pi networks with distributed parameters. The proposed method uses Cayley-Hamilton's theorem to compute the hyperbolic N-dimensional generalized ABCD parameter matrices with finite terms which are fundamental to the solution and development of the equivalent N-dimensional T and Pi matrix networks. The square root function of the complex matrix [W] is also computed with finite terms. As a result, truncation of matrices is eliminated, and an improved closed form solution is achieved. The method is straight forward, computationally efficient, and neither it involves the use of eigenvector based modal transformations necessary for diagonalization of parameter matrices nor it requires the evaluation of infinite series of hyperbolic functions with n-dimensional matrices as their arguments, and is extremely useful in the steady state and transient analysis of n-dimensional, unbalanced, coupled systems with distributed parameters. The method is extremely useful in the fault analysis of n-dimensional unbalanced coupled systems with distributed parameters. To date no such method is reported in the literature.

**Keywords:** N-phase transmission lines, Fault analysis, Hyperbolic functions of N-dimensional matrices, ABCD parameter matrices, N-dimensional circuits with distributed parameters, Coupled matrix circuits, Equivalent T matrix circuit, Equivalent Pi matrix circuit, Cayley-Hamilton's theorem, Solution of large networks.

22. Anjum, M. E., Ali, S. F., Hassan, T., & Adnan, M. (2013). *Video summarization sports: Highlights generation*. Paper presented at the 16 International Multi Topic Conference (INMIC) 2013, University of Engineering and Technology, Lahore 54890, Pakistan.

**Abstract:** The mechanism to recognize highlights from videos is basic and fundamental problem for indexing and retrieval applications. In this paper we propose techniques to generate sports highlights from cricket video using techniques of optical character recognition. First the score bar is extracted from the frames then the character recognition techniques are used to extract information for events like sixes, fours and wickets. A short video summary is synthesized that includes the frames for the aforementioned significant events termed as Highlights. The process of sports highlights generation is automated resulting in a condensed summary for the viewer that reduces the time and space requirements.

**Keywords:** Optical Character Recognition; sports highlights extraction.

**Journal Articles**

1. **Haider, A.** (2013). K-Medoids based clustering of PlanetLab's slice-centric data. *Applied Mathematics & Information Sciences*, 7(6), 2373-2384. (JCR HEC approved **Impact Factor 0.731**)

**Abstract:** This paper investigates the application of widely used K-Medoids based clustering algorithm on data collected through CoMon facility for the PlanetLab testbed. The averaged values of various metrics in passively collected slice-centric data has been considered for clustering purposes. Various groups of slices, depicting similar resource usage patterns have been identified in original data set. These clusters have been represented in reduced dimensional space formed by first two principal components of original data set. In order to capture variations in pattern of resource usage by various slices at a PlanetLab node, clustering of standard deviations of various metrics have also been carried out. Further, combining averaged and standard deviation, clustering has also been performed on index of dispersion computed from the original data set. It has been found that K-medoid based clustering can effectively split the original data space into various sub-spaces of different resource usage behaviour of slices. Thus, it can lead to better resource management and control in publicly available testbeds.

**Keywords:** PlanetLab, Slice-Centric CoMon data, Resource management, Principal Component Analysis (PCA), K-medoids based clustering & Cluster validation.

2. **Mushtaq, M. T., Jaffer, G., Khan, M. S., & Koudelka, O.** (2013). Welch Periodogram Detector for QPSK Based AWGN Base-Band and Pass-Band Cognitive Radio Systems. *Microwave journal*. (JCR HEC approved, **Impact Factor 0.17**)

**Abstract:** The idea of software defined radio was proposed by J. Mittola. It was a radio designed on programmable chips. The idea of SDR was further enhanced in the form of Cognitive radios. It was proposed by the J.Mittola for the solution of the Spectrum Scarcity problem. Cognitive Radio based networks have the two types of users. One type of the users is known as primary users and the other are known as the secondary users. The Primary users are licensed users and the secondary users are the cognitive users (unlicensed) users .The Primary users have the priority of spectrum usage .While the cognitive user have the opportunistic nature of the spectrum usage . Cognitive user can use the primary user's frequency when the spectrum holes (primary user is not communicating) are available. There are many signal processing operations in the background of the Cognitive Radios. One of these operations is the Spectrum sensing. Signal detection theory is used for the separation and recognition of information from the noise buried background and mitigation of interference.

The spectrum sensing (primary user detection in licensed spectrum) is the most important task and fundamental problem in Cognitive Radio systems and networks. This requirement reborn the spectrum sensing as an active research area. Various Parametric and Non parametric Spectrum Sensing techniques are used for the spectrum hole detection. Welch periodogram is the energy based detection technique. It uses the Barlett windowing function. This is an easy to implement, simple real time and fast Spectrum sensing technique. Welch periodogram needs less prior information about the source signal and propagation channel. In this paper, Welch periodogram detector is used for the signal detection in QPSK based Base-band and Pass- band signal detection through AWGN channel. The technique is successfully implemented up to SNR =-30 dB Welch periodogram provides an easy and simple solution for the detection of spectrum hole and mitigation of noise in cognitive radio systems and networks.

**Key Words:**Cognitive radio, Spectrum sensing, Welch periodogram, Windowing, Barlett window

3. **Siddique, A., & Tahir, M. (2013).** Joint Rate-Brightness Control using Variable Rate MPPM for LED Based Visible Light Communication Systems. *IEEE Transactions on Wireless Communications*, 12(9), 4604 – 4611. (JCR HEC approved, **Impact Factor 2.418**)

**Abstract:** LED based lighting systems provide an opportunity for data transmission in addition to their traditional use as source of illumination. Brightness control is required to achieve either desired level of illumination or to achieve energy conservation.

Conventionally, simultaneous data transmission as well as brightness control is achieved using two different modulation schemes. Either pulse width modulation or pulse amplitude modulation is used for brightness control and some variants of pulse position modulation are employed for data transmission. The need for two different modulation schemes, to meet the dual objective, makes the system design complex. In this paper we propose variable-rate multi-pulse-position-modulation (VR-MPPM), for LED based visible light communication system, to achieve joint brightness control and data transmission. The proposed approach eradicates the need for either pulse width modulation or pulse amplitude modulation and still achieves the brightness control. Encoder and decoder algorithms for VR-MPPM realization are developed and are implemented on the hardware testbed. Experimental results revealing the effect of brightness level variation on symbol error rate are also provided. Existence of an underlying tradeoff between achievable resolution for brightness control and the corresponding successful data transmission rate is recognized. To exploit this trade-off, an optimization problem is formulated.

**Keywords:** Visible light communication, multi pulse position modulation, variable rate MPPM, brightness control.

4. Usman, A., & Shami, S. H. (2013). Evolution of communication technologies for smart grid applications. *Renewable and Sustainable Energy Reviews*, 19(0), 191-199. (JCR HEC approved, **Impact Factor 6.577**)

**Abstract:** The idea of Smart Grid has started to evolve more rapidly with the enhancement in Communication Technologies. Two way communication is a key aspect in realizing Smart Grids and is easily possible with the help of modern day advancements in both wired and wireless communication technologies. This paper discusses some of the major communication technologies which include IEEE specified ZigBee, WiMAX and Wireless LAN (Wi-Fi) technologies, GSM 3G/4G Cellular, DASH 7 and PLC (Power Line Communications), with special focus on their applications in Smart Grids. The Smart Grid environments and domains such as Home Area Automation, Substation Automation, Automated Metering Infrastructure, Vehicle-to-Grid Communications, etc. are considered as priority areas for developing smarter grids. The advancements, challenges and the opportunities present in these priority areas are discussed in this paper.

**Keywords:** Smart Grids Power Line Communications (PLCs) ZigBee Wi-Fi WiMAX GSM/GPRS DASH7

## Conference Papers

5. Ali, F., Bhatti, A. A., Nasir, M., & Saeed, M. A. (2013). Fuel cell based intelligent hybrid energy storage system and grid integration. Proceeding of the international conference of energy and Sustainability - 2013 NED University of Engineering and Technology, Karachi, Pakistan.

**Abstract:** The electric power variability and intermittency issues create a number of problems in power generation and distribution systems. The power source may exhibit undesired or uncontrolled changes in the output and due to this reliability, stability and power quality issues occur in the main electric grid. With the increasing consumption of power and depletion of the conventional energy resources, the use of Renewable Energy Sources (RES) has increased tremendously. Fuel cells are found to be very promising in power generation sector due to their higher efficiency than diesel and gas engines, silent operation and low maintenance cost. This paper presents a fuel cell model based intelligent hybrid energy storage system connected with a micro grid, which can resolve power intermittency and variability issues. Stand alone operation of the fuel cell stacks as a power source, faces many problems in achieving the desired load characteristics. A hybrid energy storage system (HESS) composed of two or more than two paired storage devices that when integrated, overcome limitations inherent in either and can provide both high energy and power densities. The proposed hybrid energy storage system model composed of fuel cell and battery is further integrated with the microgrid, which smoothes the variability of the generated power and controls its voltage and the frequency. The proposed HESS model comprises of intelligent digital controllers (AVR Microcontroller) of power sources, DC/DC and DC/AC

converters to manage the power flow both on the DC and AC sides. Simulation results are given to show the overall system performance.

**Key Words:** Not Available

6. **Ali, I., Butt, F. A., Malik, A., & Khalid, T. (2013).** Need for Smart Transmission Grid in Pakistan: Technical and non-technical challenges in its development. Paper presented at the Business Engineering and Industrial Applications Colloquium (BEIAC), 2013 IEEE.

**Abstract:** Pakistan, a developing country, full of natural resources and manpower with population exceeding 176.74 million has a lot of potential in fulfilling its energy requirements. However, the country is facing severe shortage of electricity due to overloading, mismanagement, transmission line losses, electricity theft issues, aged equipment, poor maintenance and questionable monitoring and control. These issues have really put the power sector to a downfall. In Pakistan, transmission line losses are very high as compared to other countries. Each year these losses are increasing which is becoming a challenge for the country. Existing aged Transmission Grids (TGs) are very poorly managed, rendering them unreliable, insufficient, and unaffordable. Intelligent energy management using advanced digital technology combined with power electronics and sensors can greatly improve transmission lines efficiency. In this paper, need for Smart Transmission Grid (STG) and possible technical and nontechnical challenges are focused; proposed solution is given to tackle with these on-going issues which are the main obstacles for its practical implementation.

**Key Words:** Smart transmission; transmission grid technical losses; non-technical losses  
N45:O45+N46

7. **Butt, F. A. & Jalil, M. (2013).** An overview of electronic warfare in radar systems. Technological Advances in Electrical, Electronics and Computer Engineering (TAECE), 2013 International Conference on, IEEE.

**Abstract:** Electronic counter measures and electronic counter-counter measures are the two major types of electronic warfare that are always seem to be in competition with each other. Aircrafts without electronic counter measures are usually in a high risk against the enemy's air defence. Similarly Radars without electronic counter counter-measures are considered worthless and incapable of deploying in the sensitive zones. In this paper a brief comparison of electronic counter and countercounter measures is presented highlighting a race against each other for superiority.

**Key Words:** Electronic warfare, electronic countermeasures digital radio frequency memory.

8. **Haider, A., Harris, R. J., & Sirisena, H. R. (2013).** Virtualization and new generation network design, Australasian Telecommunication Networks and Applications Conference, Christchurch New Zealand (20-22)

**Abstract:** The current Internet is resistant to any significant change in its fundamental design, although it has successfully incorporated small incremental changes due to strong push from newer technologies and applications. Thus, due to this slow paced, uncoordinated and limited scale evolutionary changes, several projects around the world have adopted a more radical, clean slate approach to construct the future networks from scratch. In between the tug of interests of various players, network virtualization has been propounded as one of the most important attributes of the future inter-networking paradigms. Its key idea is to allow cohabitation of heterogeneous services

and networks on shared physical resources, i.e. clean slate based networks or hidden redundancy in the existing Internet. This paper attempts to present a birds eye view of basic concepts, models and requirements for virtualization in the new generation networks. We support the idea that both the current Internet and networks based on clean slate approaches should work in parallel, while both supporting Virtualization on IP as a indispensable tool to provide diverse, adaptable, robust, secure and easily manageable future networks.

**Keywords:** Not available

9. **Haris, M., Salik, M., Safdar, A. A., Rashid, U. (2013).** Improved fuzzy logics based differential protection scheme. Power Engineering and Optimization Conference (PEOCO), 2013 IEEE 7th International, IEEE.

**Abstract:** In this research work, fuzzy logics based differential protection scheme is proposed for power transformer. Membership functions are developed from voltage, frequency and currents at primary side and secondary side of the power transformer. The proposed protection scheme senses the operating conditions and gives trip or no trip signal to the circuit breaker from the fuzzy inference of the small, medium and high values of the membership functions. Simulation results of various operating conditions, shows that the proposed differential relay is reliable, fast and is able to discriminate between internal faults, external faults and magnetizing inrush current. Results also demonstrate selective phase switching and auto-reclosing function of the protection scheme. Fuzzy logics based protection scheme is modeled in MATALAB-SIMULINK environment.

**Key Words:** Auto re-closing, fuzzy inference, fuzz logics, membership functions, selective phase switching.

10. **Hussain, A., Lee, H., & Sul, S.-K. (2013).** Forward fly-back voltage balancing circuit for series connected super capacitors using digital control. Paper presented at the Renewable Energy Research and Applications (ICRERA), 2013 International Conference on.

**Abstract:** Supercapacitor is an electrical energy storage device which offers remarkably high energy density when compared to conventional capacitors and high power density when compared to batteries. While using the supercapacitors for energy storage, the main disadvantage is their limited voltage due to contemporary technology restrictions. Therefore, for higher voltage operation supercapacitors are connected in series to achieve the appropriate voltage level. Because of the difference in the magnitude of capacitance of cells, local over-voltage appears on one or more supercapacitor cells. This over-voltage decreases the lifetime and energy storage efficiency of the associated cell, which can be improved considerably by balancing the voltages across each supercapacitor. This paper presents an active voltage balancing approach using a forward fly-back power converter. In the proposed balancing scheme, cell with the higher voltage is selected to extract the extra energy and then a proportion of this extracted energy is distributed to other supercapacitors via the proposed circuit. The feasibility of the proposed balancing scheme has been verified by computer simulation and experimental results.

**Keywords:** Supercapacitor, voltage balancing, forward fly-back converter



11. **Jalil, M., Butt, F. A. Malik, A. (2013).** Short-time energy, magnitude, zero crossing rate and autocorrelation measurement for discriminating voiced and unvoiced segments of speech signals. Technological Advances in Electrical, Electronics and Computer Engineering (TAECE), 2013 International Conference on, IEEE.

**Abstract:** This paper presents different methods of separating voiced and unvoiced segments of a speech signals. These methods are based on short time energy calculation, short time magnitude calculation, and zero crossing rate calculation and on the basis of autocorrelation of different segments of speech signals. From theoretical studies, it has been observed that energy and magnitude for voiced segments is high, whereas ZCR rate is low for voiced signals. Autocorrelation function is used here to show that the voiced segment of speech remains periodic after applying autocorrelation function, while unvoiced signals lose their periodicity. Experimental results have been presented in this paper to verify theoretical studies.

**Key Words:** Zero Crossing Rate, Short Time Energy Autocorrelation, Voiced, Unvoiced

12. **Jalil, M., Butt, F. A., & Malik, A. (2013).** A survey of different speech synthesis techniques. Paper presented at the Technological Advances in Electrical, Electronics and Computer Engineering (TAECE), 2013 International Conference on.

**Abstract:** The Objective of this paper is to present comprehensive overview of formant and concatenative speech synthesis techniques. Initially, formant synthesis is explored and then concatenative synthesis. Using softwares, speech synthesis is performed by both methods and then their results are compared. The pros and cons of both these methods are discussed as well.

**Keywords:** speech synthesis, formant synthesis, concatenative synthesis, text to speech, TD-PSOLA

13. **Nasir, M., Bhatti, A. A., & Toor, W. T. (2013).** Model formulation and design of an efficient control algorithm for fuel cell power system. Paper presented at the Power Engineering, Energy and Electrical Drives (POWERENG), 2013 Fourth International Conference on.

**Abstract:** In this research work a Fuel cell based power system is explicitly modeled and analyzed under the various possible operating conditions. In order to ensure a reliable, efficient, durable and cost effective operation, a control system based on the management of air and fuel flow regulations can be designed. Fuel cell systems produce clean energy and they have got higher energy conversion efficiencies as compared to Internal Combustion Engines based power plants. In order to make this technology economically viable, feed of the air and fuel, pressure regulations, flow rates and the heat produced must be optimally controlled. Oxygen depletion, during the transient reactions is the major cause of low performance and subsequent deteriorations. In order to overcome the stated limitations, internal subsystem reactions are modeled deliberately and examined carefully. Based on the mathematical deductions and feedback control techniques, optimal pressures and flow rates for hydrogen and oxygen are selected. Breath control unit can be efficiently controlled by using this model to avoid degradation. The output voltage model is also delineated in terms of internal electrochemical dynamics to confirm the maximum power gain by the selected parameters. Results are also verified using MATLAB/ Simulink tool. The Proposed

methodology is equally valid for both Polymer Electrolyte Membrane and Solid Oxide Fuel Cells based power systems with some modifications.

**Key words:** PEMFC, SOFC, Fuel Cell Power System, Breat Control Unit, Optimal Flow Rate

14. **Shahab, M. B., Hussain, A., & Shoaib, M. (2013).** *Smart grid traffic modeling and scheduling using 3GPP LTE for efficient communication with reduced RAN delays.* Paper presented at the Telecommunications and Signal Processing (TSP), 2013 36th International Conference on.

**Abstract:** There has been a dramatic improvisation in communication technologies during the last two decades. This in turn has evolved as a great source of strength to ideas regarding implementation of smart grids. This paper has three basic emphasis areas. At first, it presents a smart grid top to down hierarchy tree based traffic model by considering the different types of information carrying traffic travelling between multiple nodes of a smart grid. This is done by analyzing the multiple functions performed by a smart grid. After that 3GPP LTE is addressed as the most promising communication backbone for smart grid environment. Its performance has been analyzed in terms of high data rates, improved coverage and reduced Scheduling and Transmission delays. In the end, a priority based queuing technique for smart grid traffic is proposed by categorizing the smart grid traffic into different classes with each class representing a different type of information/data. This results in reducing the queuing delays of traffic at end and intermediate nodes. It has been shown through results that the proposed traffic modeling, scheduling and queuing result in reduced Random Access Network (RAN) delays.

**Keywords:** Smart Grid, 3GPP Long Term Evolution (LTE), Traffic, Micro grids, Scheduling, RAN Delays, Queuing

15. **Shahab, M. B., & Iqbal, A. (2013).** *Efficient Solution to Physical Cell Identity Assignment Problem in 3GPP Long Term Evolution.* Paper presented at the 6th Joint IFIP Wireless and Mobile Networking Conference (WMNC'2013), Dubai.

**Abstract:** This paper presents an efficient solution to physical cell identity assignment problem in 3GPP Long Term Evolution (LTE). The technique takes advantage from the concept of graph coloring and is quite efficient in the sense that minimum number of colors/PCIs is utilized in achieving a collision and confusion free Physical Cell Identity allocation throughout the network. The method has been thoroughly explained using an example, and it has been shown how the technique works and accomplishes the required results. This method is also very much helpful in situations in which somehow a conflict of PCIs occurs between two or more cells. Simulations are performed on a large scale network during initial network wise configuration stage, in which all the cells are without any PCIs assigned.

**Keywords:** Physical Cell Identity (PCI), Long Term Evolution, Collision, Confusion, Graph Coloring

16. **Toor, W. T., Shahab, M. B., Shoaib, M., Hussain, A., & Nasir, M.** (2013). Smart Grid Architecture and Communication Using Heterogeneous Communication Techniques in Different Tiers. Paper presented at the 4th International Conference on Power Engineering, Energy and Electrical Drives (POWERENG), Turkey, Istanbul.

**Abstract:** This paper discusses different communication techniques in different tiers of architecture of smart grid. Communication is what differentiates between conventional and smart grids. Existing communication techniques can be used for the communication among different grids. Each communication technique has some pros and cons. If same communication technology is used for the whole network, it may be advantageous in certain scenario or tier but may not be beneficial in other tiers. This paper presents the idea of using different communication techniques for different tiers. The main objective is to use the advantage of a communication technique in a certain tier without bearing its disadvantage in any other tier. Different topologies of grid connectivity are discussed and communication techniques are also proposed and discussed accordingly. Priority and data rate for the data sent by the grids is also taken care of in proposing these techniques. Since different communication techniques are used

at each level, interoperability is an important issue. Different problems are addressed and solution are proposed.

**Keywords:** HSPA, LTE, LTE-A, Micro grid, Smart grid, PDH, SDH, Optical Fiber

### Journal Articles

1. Bano, S., Khan, M. F. A., Habibullah, & **Butt, N. A.** (2013). Analysis of Workforce Diversity, Commitment of Employee's and its Effects on Organizational Performance: Corporate Sector in Islamabad Pakistan. *International Review of Basic and Applied Sciences*, 1(3).

**Abstract:** Workforce diversity and employees commitment in the context of Globalization has attained significant attention of today's Researchers. This paper endeavors to ascertain major factors of work-setting and its effects on organizational performance. Two independent variables i.e workforce diversity and committed workforce relations have been analyzed on employee's organizational performance. Data was collected from 286 respondents from employee's belonging to the corporate sector of Islamabad Pakistan. Middle level management tiers were segment of the study age ranging from 30 to 40 years. Questionnaire was administered using five point likert scale. Result reveals that there is 71% variation between committed work force and organizational performance: henceforth, that committed work force is an important factor of organizational growth with a t-value of (17.295). The p-value values indicates that the variables are significant as  $P < .05$ . Similarly, committed work force effects have variation on organizational performance by 20 %. The results further represent that the variables are significant with the p-value of  $< .05$ ). It is evident from the analysis that diverse workforce once managed well on the work environment and employee's are committed then organizational performance is with t-value of 6.679. It is therefore imperative for the organizations to accord due priority to the major work-setting like diversity and employee commitment in the organizations facilitating employees to yield befitting organizational loyalty.

**Keywords:** Work-setting, conducive work environment, organizational loyalty, and employees commitment

2. Malik, M. H., Malik, Z. A., Hussain, T., & **Ramzan M. B.** Effect of sewing parameters and wash type on the dimensional stability of knitted garments. *Autex Research Journal* 13(3), 89-94. (JCR HEC approved, **Impact Factor 0.405**)

**Abstract:** The aim of this research is to study the effect of clothing manufacturing parameters, that is, stitch type, stitch density, sewing thread type and washing type on the dimensional stability of single jersey knitted garment. Single jersey bleached fabric, made from Ne 32 cotton combed ring spun yarn, was used to make 32 medium size crew neck T-shirts selecting two levels of stitch type, stitch density, sewing thread type and wash type according to the experimental design. After constructing the garments, four critical measurements of each garment, that is, body length, body width, across shoulder and sleeve length were measured. The constructed garments were divided into two equal groups. One group was washed with water and the other group was washed using a detergent.

After washing, drying and tumbling, the same critical measurements of each garment were taken and the percent shrinkage was calculated. Analysis of data was done on responses of output

variables against the input variables using MINITAB. The results showed that three input variables: stitch type, stitch density and garment wash type have significant effect on all the output variables.

**Keyword:** Knitted garment, dimensional stability, stitch density, stitch type, wash type and crew neck T-shirt

3. Tusief, M. Q., Mahmood, N., **Amin, N.**, & Saleem, M. (2013). Fabric Tensile Strength as Affected by Different Anti pilling Agents at Various Concentration and pH Levels. *JOURNAL OF THE CHEMICAL SOCIETY OF PAKISTAN*, 35(2), 238-242. (HEC approved Local Journal)

**Abstract:** Pilling is a phenomenon that has a long cause trouble in textile industry. It is the formation of pills or knops on the surface of woven or knitted fabrics caused by friction and abrasion. If fabric has a pronounced tendency to pilling, their appearances suffer severely after a short period of use. The pilling of fabrics is a serious problem for the apparel industry. The use of anti pilling finishes is one of the best techniques to control the pilling of the fabric. In this method fabric is treated with special anti pilling agents to prevent pilling that promote adhesion of the fibres in the yarn or the fabric. This paper endeavors to optimize the application of different anti pilling agents at different concentration and pH levels on the Tensile Strength of P/C fabric for best results. The results exposed that different anti pilling finishes have significant effects on the Tensile Strength of fabric at different concentration level however different pH levels have no considerable effects.

**Keywords:** Not Available

## Conference Papers

4. Omer, M., Iqbal, A. & **Abbas, M.** (2013). Synthesis of New Rhodamine Based Dyes and Finding Their Applications in Latent Fingerprints, Paper presented at 1<sup>st</sup> International Conference on Applied Chemistry at GC University Faisalabad, Pakistan (18-20).

**Abstract:** Rhodamine dyes are fluorophores that belong to the family of xanthenes along with fluorescein and eosin dyes. Due to their excellent photostability and photophysical properties, these dyes can be used for diverse applications including fingerprinting. Such applications generally involve either use of a dusting agent that adheres to the sticky material deposited on the surface following contact or a chemical developer that produces a visual coloration due to chemical interaction of the applied developer with the chemicals commonly found within the deposited material on the surface. According to already available data, various derivatives of Rhodamine B has yielded better visualization during latent finger prints. We envisaged that various derivatives of Rhodamine B would give better visualization during latent finger prints. In the same pattern, some new functional rhodamine B were synthesized in our laboratory. Finally, the dyes were decorated by novel functional groups for visualization of latent finger prints.

**Keywords:** Not available

## School of Social Sciences and Humanities

### Department of Education

#### Books/Book Chapters/Book Reviews

1. Arif, A., & Hameed, A. (2013). Psychologists serving persons with special needs: Lambert Academic Publishing.

### Department of English Language & Literature

#### Journal Articles

2. Baig, M. (2013). Analyzing the Advertising Discourse-A Journey from Sight to Mind. *International Journal of Applied Linguistics & English Literature*, 2(1).

**Abstract:** This research paper sets out to project an in-depth study of the advertising discourse by applying methodological approaches of Discourse Analysis and Critical Discourse Analysis to the chosen “advertisements”. It aims at examining the ‘power relations and struggles’ among product-producers and product-consumers, to gauge the level of psychological dominance exercised through the advertising discourse. The study, fundamentally, presents a counter analysis of ‘advertising strategies’, as to how far they influence the consumers’ attitudes and to what extent the consumers direct their ‘discourse’. In other words, this research attempts to answer the question: ‘who turns out to be more powerful by controlling the other’s mind, in advertiser-consumer relationship?’, whether it is the consumer who shapes the discourse of advertisements through their demands, or the advertiser who affects the consumers’ beliefs through their ‘discourse’! Thus, the current paper presents a comprehensive review of the relevant literature leading towards a theoretical framework of preferred DA and CDA approaches to be further applied on the discourse of advertisements. And towards the end, it states the final remarks concluding the entire discussion and reflecting upon the effectiveness of Critical Discourse Analysis in its application on the advertising phenomena.

**Keywords:** Discourse analysis, Advertising discourse, Producer-consumer power relations, Critical discourse analysis of chosen advertisements

3. Karim, A. (2013). The Scarlet Letter and Postmodernism. *3L: The Southeast Asian Journal of English Language Studies*, 19 (3): 115 – 125.

**Abstract:** Postmodernism is a convoluted and nebulous term to define as it involves a plethora of major and minor details that appear in a wide variety of areas of study like art, literature, culture architecture, technology, education. Equally problematical is to locate it historically as well as temporally. One of the principal areas of post modernism that continues to inspire critical debate is its strong scepticism of the grand narratives of modernism. Contrary to the modernist focus on hierarchical grand positions, post modernism as Lyotard envisioned it “preaches an appreciation and respect for diversity, for local differences, for the plurality of ways in which human choose to live”. This study aims to analyse Hawthorne’s The Scarlet Letter as a postmodern text for it demonstrates a strong disinclination to uphold logocentric, monologic, absolute, universalist and

structured metanarratives. It will be argued that a strong and hierarchical power structure supports and uphold these metanarratives for specific objectives of perpetuation of the governance and authority over the people. Thus, it links Lyotard's scepticism of metanarratives with Foucault's discourse of knowledge and power. It will be argued that resistance and opposition to this phenomenon is pre-eminently demonstrated not only by the most marginalized Hester Prynne, but also by Arthur Dimmesdale who has been one of the beneficiaries of these metanarratives. In countering and opposing the metanarratives, both establish a space for the legitimization of pluralism, diversity and heterogeneity as well as post modern liberation from the totalitarian persecution of the marginalized and the dissident voices.

**Keywords:** Postmodernism; death of metanarrative: pluralism; heterogeneity; The Scarlet Letter

4. **Rafi, M. S. (2013).** Natural Order of Vocabulary Acquisition. *EUROPEAN ACADEMIC RESEARCH*, 1(5). [www.euacademic.org](http://www.euacademic.org)

**Abstract:** Past investigations conclude that L1 (first language) English learners acquire frequent, concrete, typical and basic level words faster and earlier than infrequent, abstract, atypical and super-ordinate level words. This study examines: (a) the natural order of vocabulary acquisition among 5 to 7 years old English as a Second Language (ESL) learners, and (b) whether the order of vocabulary presentation in the Grade-I English textbook, published by Punjab Textbook Board (PTB), Pakistan, coincides with the vocabulary acquisition habits of the learners. A vocabulary test was executed to gather data from one hundred and twenty ESL learners. A corpus analysis of the Grade-I English textbook was also carried out to compare the order of vocabulary presentation with the learners' acquisition habits. The study revealed that Grade-I ESL learners acquire and memorize frequent, concrete, basic level and typical vocabulary of a category faster and earlier than infrequent, abstract, super-ordinate and atypical ones. Moreover, the order of vocabulary presentation in English textbooks does not match with the acquisition habits of the learners, which has implications for textbook writers.

**Keyword:** ESL, learner, vocabulary, acquisition, and textbook

## Department of Special Education

### Journal Articles

5. Arif, S., M. Ilyas & **Hameed, A.** (2013) Student satisfaction and impact of leadership in private universities, *The TQM Journal*, Vol. 25 Iss: 4, pp.399 – 416.

**Abstract:** *Purpose* – The purpose of this paper is to discuss the differing views of the students studying in private universities in Pakistan about quality and the gap that exists between their expectations and actual experiences from the services provided.

*Design/methodology/approach* – The research has been conducted in seven private universities of Pakistan using quantitative survey for data collection and data analysis. SPSS has been used to apply exploratory factors technique to identify satisfying and dissatisfying factors in customers of higher education through six service quality indicators (teaching, management, leadership, campus life, academic services and infrastructure).

*Findings* – The multivariate effects of satisfaction across universities were measured through MANOVA. Discriminant analysis has been the most critical tool used for analysis, as not only could it distinguish between satisfied and dissatisfied students across seven universities, but predicted the strength of the word of mouth and intentions to stay in the university.

*Originality/value* – A model has been proposed to understand dynamics of student satisfaction and loyalty in private universities of Pakistan. The model suggests that two leading factors, which influence students' perception of service quality are either related to leadership and effective planning or to management, the actual process of service delivery.

**Keywords:** Higher education, Leadership, Pakistan, Private universities, Service quality, Student loyalty, Student satisfaction, Students, Total quality management, Universities, User satisfaction

6. Qadir, M.J., **Hameed, A.** (2013). Effectiveness of ICT training workshop for tutors o Allama Iqbal Open University Islamabad. *World Academy of Science, Engineering and Technology*. Issue 80 pp 901-04.

#### Deartment of social sciences

##### Conference Papers

7. **Haneef, M.** (2013). Symbolic Interactionism: The Role of Non-Verbal Communication in Teaching Practices. Paper presented at the 3rd International Conference on "Education in Pakistan: Practices and Challenges", University of Education, Lahore.
8. **Waseer, W. A.** (2013). Social Construct of Scarcity: A Challenge for the Sustainability of Ground Water in Lahore. Paper presented at the 12th International Asian Urbanization, Banaras Hindu University (BHU), India.

#### Institute of communicationa and Cultural studies

##### Conference Papers

9. **Zafar, A.** (2013). Pakistani English Language Teachers' Perceptions and Classroom Practices about Grammar Teaching at O- Level. Paper presented at the International Language for Communication Conference (ILCC), Kuala Lumpur, Malaysia.

#### Department of Clinical Psychology

##### Journal Articles

10. Habib, S., **Saleem, S., & Mahmood, Z.** (2013). Development and Validation of Social Intelligence Scale for University Students. *Pakistan Journal of Psychological Research*, 28(1).  
(X category HEC approved Local Journal)



**Abstract:** The present research was undertaken to develop and validate the social intelligence scale. Attributes of social intelligence were elicited from 35 university students. After empirical validation, 431 university students were asked to rate themselves on the 98 item on a 4-point scale. Factor analysis revealed five factors namely; Social Manipulation (SM), Social Facilitation (SF), Social Empathy (SE), Extroversion (E), and Social Adaptability (SA). SM and SA appeared to be the two ends of social skills judged to be negative and positive. SM comprising rather devious set of items used to exploit others for selfish ends. SA represented honest and sincere interaction with others resulting in mutual benefit. SF was positively related to SE and SA whereas SM was not. Extroversion correlated highly with all factors. Construct validity was established with the help of Bar-On Emotional Quotient Inventory (Bar-On, 1997) and test retest reliability was also found to be satisfactory. The findings are discussed in terms of the factor structure and function of SI in the context of the culture.

**Keywords:** social intelligence; phenomenology; university student; collectivistic culture

11. Saleem, S., Mahmood, Z., & Naz, M. (2013). Mental Health Problems in University Students: A Prevalence Study. *FWU Journal of Social Sciences*, 7(2), 124-130. (HEC approved Local Journal)

**Abstract:** A survey of mental health problems of university students was carried out on 1850 participants in the age range 19-26 years. An indigenous Student Problem Checklist (SPCL) developed by Mahmood & Saleem, (2011), 45 items is a rating scale, designed to determine the prevalence rate of mental health problem among university students. This scale relates to four dimensions of mental health problems as reported by university students, such as: Sense of Being Dysfunctional, Loss of Confidence, Lack of self Regulation and Anxiety Proneness. For interpretation of the overall SPCL score, the authors suggest that scores falling above one SD should be considered as indicative of severe problems, where as score about 2 SD represent very severe problems. Our finding show that 31% of the participants fall in the “severe” category, whereas 16% fall in the “very severe” category. As far as the individual dimensions are concerned, 17% respondents comprising sample of the present study fall in very severe category Sense of Being Dysfunctional, followed by Loss of Confidence (16%), Lack of Self Regulation (14%) and Anxiety Proneness (12%). These findings are in lying with similar other studies on mental health of students. The role of variables like sample characteristics, the measure used, cultural and contextual factors are discussed in determining rates as well as their implications for student counseling service in prevention and intervention

**Keywords:** University students, mental health, prevalence:

12. Saleem, S., & Mahmood, Z. (2013). Risk and Protective Factors of Emotional and Behavioral Problems in School Children: A Prevalence Study. *Pakistan Journal of Psychological Research*, 28(2), 239-260.

**Abstract:** A sample of 5053 school children (51% girls and 49% boys) with the age range of 13-17 (M = 14.40, SD = 1.25) from 43 government schools in the city of Lahore were selected through

multistage sampling method. An indigenously developed School Children Problems Scale (SCPS; Saleem & Mahmood, 2011) was used as a self report measure to determine the prevalence of emotional and behavioral problems of children. Going by the intensity measure on the total of SCPS 31% participants fell in the severe category (one standard deviation above the mean) of these 16% fell in the very severe category (two standard deviations above the mean). By the frequency count, 21% of the sample scored above the 90th percentile. The most frequently reported problem was Anxiousness (16%) followed by Feelings of Rejection (15%) and Academic Problems (15%). Results are discussed in terms of the manifestation of emotional and behavioral problems in school children in traditional and collectivistic cultures, and their relationship with social demographic factors was also explored.

**Keywords:** School children, prevalence, emotional and behavioral problems.

### Books/Book Chapters/Book Reviews

13. **Saleem, S., & Mahmood, Z.** (2013). "Emotional and Behavioral Problems in School children: Theory & Practice". Germany: Lambert Academic Publishing.

### Islamic Thought & Civilization

### Conference Papers

14. **Majeed, S. & Waheed, A.** (2013). The Miracle of Prophet Muhammad's (Peace be upon him) Ascension: A Comparative study of the views of Said Nursi and Allama Iqbal. International Bediüzzaman Symposium Papers (English).

**Abstract:** In his yearning for truth Prophet Muhammad (Peace be upon him) reached the highest heavens. This miraculous journey tells that among all the creatures of Allah, humans are the best and the superior creation. The Ascension of Prophet (Mi'raj) is a very important topic discussed in 'Risale-I Nur'. Bediuzzaman Said Nursi pointed out that the profound truth of Ascension (Mi'raj) was a supreme miracle of Prophet Muhammad (Peace be upon him) in the world of the inner dimensions of things. Through this clear wonder, the sainthood of his prophethood was proved. This topic has also been discussed in detail in Allama Muhamma Iqbal's 'Reconstruction of Religious Thought in Islam' and 'Javed Nama'. He learns from the miracle of Ascension (Mi'raj) of Muhammad (Peace be upon him) that "Heaven" is within the reach of mankind. According to him, return of the Prophet from highest heavens discloses the psychological difference between the prophetic and the mystic types of consciousness. The aim of this paper is to compare the views of these two most influential figures of twentieth century Muslim scholarship about the significance of the miracle of Ascension (Mi'raj).

**Keywords:** Ascension, Supreme Miracle, Sainthood. Prophetic Consciousness

## School of Professional Advancement

### Journal Articles

1. Jalil, H., Hussain, S. S. & Siddiqi, A. F. (2013). An empirical study of meat supply chain and prices pattern in Lahore (Pakistan): a case study. *Journal of Supply Chain Management System (JSCMS)*, 2(4), 44-52.

**Abstract:** Meat has become an integral part of human body because it is an affluent source of proteins, vitamins, minerals, micronutrients, and fats for human beings. This study is an attempt to investigate the spending of meat and pricing model in Lahore city. The essential factors of the contribution of small farmers of livestock in the meat sector have been highlighted in this paper. Based on the primary data of year 2008 from some stakeholders, dealers and officials of the meat industry of Lahore, the findings of this research reveal that the meat prices are growing up due to unnecessary transportation expenditures imposed on the suppliers (farmers) of remote areas. The global changes like 9/11 and other regional, national and international challenges have significant impacts on the meat production, consumption and pricing patterns. Based on the information embarked on this primary research, this study invokes the role of the Government and policy makers to perk up the productivity of meat. The authors are of the point of view that this seminal research will provide insight to the policy makers, planners, strategists, businessmen, and future researchers to replicate and spread it over other parts of the country.

**Keywords:** Consumption, Supply Chain, Price Pattern, Red Meat, White Meat, Slaughterhouses.

### Conference Papers

2. Asghar, A., Abbas, R. Z., & Zaineb, A. (2013). Mirror up to Intra-organizational Power and Dependence: An exploratory account. Paper presented at the 3rd International Conference on Business Management-UMT Campus, Lahore, Pakistan.

**Abstract:** The most interesting feature of research on power in organizations is that we are blessed and plagued by variety of approaches and theories. Being blessed means that we have multitude of ideas and approaches while plagued means that many theories are fragmented and a little integration efforts have been made yet. Consequently, the clear picture of intra-organizational power relations is quite difficult to obtain. An interdisciplinary approach is needed to define links among the many aspects of power. In this theoretical synthesis, a serious attempt is made to summarize what we know and don't know about power in organizations.

**Keywords:** Not available

3. Farooqi, M. & Yazdani, N. (2013). A historicity in management research: A critique of pure empiricist stance. "Paper presented at 3rd International Conference on Business Management (ICoBM), UMT, Lahore–Pakistan.

**Abstract:** This theoretical paper focuses on the application of pure empiricism in management research. The paper traces the ahistoric consequences of empiricism in management research. It

first traces the evolution of empiricism as an art of inquiry based on Cartesian dualism. It then focuses on empiricism as a dominant methodology of management research. The paper also traces the consequences of empiricism and resulting ahistoricity in the form of gap between management research and practice, moral and ethical problems in organizations. The underlying question which the paper raises is the ahistoricity in management research as a byproduct of pure empiricist stance. The paper concludes by proposing that for the management research to be effective and useful for the practitioner it has to bring context specific knowledge of organizations.

**Keywords:** Ahistoricity, Empiricism, Management Research ,Dualism

4. **Hussain, S. S. & Yazdani, N. (2013).** Organizational Learning: An Evaluation of Relevant Literature. Paper presented at 3rd International Conference on Business Management (ICoBM), UMT, Lahore, Pakistan.

**Abstract:** This theoretical study is an attempt to provide an overview of literature on organizational learning by covering the concepts of prominent scholars from Cangelosi and Dill (1965) to Fang et al., (2010). In the last two decades, the multi-facets of the concept have emerged in academic as well as in corporate world. The field of organizational learning can be considered in several perspectives and dimensions. The aim of the study is to evaluate the salient aspects of the field while exploring the different perspectives and approaches of organizational learning namely individual/cognitive, objective, technical, social, cultural, humanistic and political. This paper also expounds various processes like single-loop, double-loop and experiential through which organizations learn.

**Keywords:** Learning, Single-loop, Double-loop, Organizational learning, Collective learning, Superstitious learning, Competency trap.

## Organizational Theory Center

### Journal Articles

5. **Abbas, R. Z., Junaid, M. R., Ather, M. R., & Ahmad, Z. (2013).** Effect of corporate alienation on managerial decision making: an analytical perspective. *African Journal of Business Management*, 7(15), 1296-1305.

**Abstract:** This study revolves around the core process of decision making in an organization keeping on board the middle management tier which is involved mostly in decision making. In every passing day more and more managers are coming across different personal problems; and even with strong academic qualifications and flair towards offering their best they are finding no place for themselves in this busy and dynamic corporate world. Organizational structure and design are the main causes that make their options miserable and leave no place to run and room to hide. They lose happiness, completeness and confidence and they hit back the society as an alien soul without any defined objective and definite purpose. The causes are studied here in the perspective of a continuous process of decision making which is the most important of all tasks a manager performs.

**Keywords:** Alienation, organizational structure, middle management tier.

6. **Abbas, R. Z., Murad, H. S., Yazdani, N., & Asghar, A. (2013).** Extending “Kahn’s model of personal engagement and disengagement at work” with reference to existential attributes: A case study of HR managers in Pakistan, *International Journal of Social Economics*, 41 (1), 2-31.

**Abstract:** Purpose - This study seeks to explore the existential meaningfulness of HR Managers’ work. The purpose of this study is to investigate the influence of four existential attributes that are death, responsibility, alienation and meaningfulness, on the work of HR Managers. The study also asserts that the work of HR Managers has an existential dimension to it. It also argues that HR Managers have human qualities. They react to human predicament and need emotional identification with their work and organization. Design/methodology/approach - The study is based on the responses of HR Managers developed on the basis of an interview guide specifically designed for this purpose. The data have been collected through extensive and in-depth field interactions with HR Managers working in diverse organizations. The research approach taken here is to focus on the discrete moments of role performance of HR managers that represent microcosms of the larger complexity. Those moments are windows into the multiplicity of factors that are constantly relevant to person-role dynamics. Focusing on specific moments of work role performance of HR managers is like using the zoom lens of a camera: a distant stationary image is brought close and revealed as a series of innumerable leaps of engagement and falls of disengagement. Findings - The study brings out the emotional and human dilemmas of HR Managers working in public and private sector organizations. While discussing and linking Kahn’s Model with Sartrean thoughts can provide unique perspective within the Strategic Human Resource Management especially in Pakistani organizations which was missing not only in Kahn’s Model but also in management literature. Originality/value - The study makes a fresh inquiry into the nature of HRM and the existential realities experienced by the HR Managers at work place. The study is unique because of its extensive field interactions based on a well-designed interview guide hitherto unapplied in the organization studies.

**Keywords:** Not Available

7. **Yazdani, N., & Siddiqi, A. F. (2013).** Coronary heart disease and five factor model of personality: A statistical assessment of the link. *Pakistan Journal of Cardiology*, 24(3-4), 05-22.

**Abstract:** This empirical study explores the role of personality traits in causation of Coronary Heart Disease (CHD). A total of 231 participants including both confirmed cases of CHD and non-patients were surveyed. Data regarding personality traits was collected by using TIPI instrument while closedended questions elicited data about other medical and demographic variables of interest. Logistic Regression analysis<sup>2</sup> was used to isolate significant personality traits in relation with the dependent variable CHD. Baron&Kenny mediation approach was employed in the attempt to isolate mediators of the study. Analytical findings are discussed in the light of cardiology and personality literature review undertaken to arrive at theory developed in the paper. Future research implications and major limitations of this study are also discussed.

**Keywords:** Coronary Heart Disease (CHD), Five Factor Model (FFM) of Personality, Logistic Regression, Mediation Analysis, Personality/Heart Disease Link

## Conference Papers

8. **Abbas, R. Z. (2013).** Exploring the multidimensionality of globalization: perspectives and insights. Paper presented at the Doctoral Conference at UMT.

**Abstract:** Not available

**Keywords:** Not available

9. **Abbas, R. Z. (2013).** Mirror up to KM paradoxes and strategy paradoxes: an exploratory account. Paper presented at 3rd International Conference on Business Management (ICoBM), UMT, Lahore–Pakistan.

**Abstract:**

Objectives: 1. To explore, extend and refine the theory based framework of Schultze and Stabell discourses, and contradictions in KM research. 2. To discuss double edged nature of knowledge by highlighting different assumptions about knowledge and its management. 3. To discuss strategy paradoxes as additional contradictions in the domain of KM research. 4. To elaborate further specifically dialogic discourse and constructivist discourse. Methodology: Using the examples of Pakistani organization and International cases for exploring paradoxes in the land of KM and strategic management, the relevant literature has been explored from strategic management and knowledge management. For Pakistani organizations insights are taken from Brand Elections 2010 and for multinational organizations, the examples of short cases are taken from the book Strategy: Process, Content, Context .An international perspective. The 3D view of strategy (strategy process, strategy content, strategy context) along with the exploration of different paradoxes lying in 3D view of strategy (strategy process, strategy content, strategy context) with reference to KM has been presented. Suggestions have been made to extend and further refine the theory based model of Schultze and Stabell as the direction for future research.

**Keywords:** KM paradoxes, strategy paradoxes, Knowledge Management, Strategic Management, 3D view of strategy, Pakistani organizations, International cases

10. **Yazdani, N. & Naeem. M. (2013).**Sustainable Competitive Advantage: Organizational Culture and Human Resource Perspective. Paper presented at 3rd International Conference on Business Management (ICoBM), UMT, Lahore, Pakistan.

**Abstract:** This paper attempts to develop a theoretical background that undertakes the concept of organizational culture and human resource in attaining, sustaining and renewing the sustainable competitive advantage of firms. Firms that own valuable, rare, inimitable and non-substitutable resources in the form of tangible and intangible assets are the only ones to continue to survive in today's dynamic market conditions. It has been found that organizational culture and human resources which are rooted in social interactions occurring over a period of time influences people's behavior. This influence is created through the use of language, technology, rules and regulations and, knowledge and ideas. Culture created in organizations thus becomes a source of creating causal ambiguity and isolating mechanisms which are difficult to imitate, interpret and understand explicitly.

**Key Words:** Not Available

11. **Yazdani, N. & Siddique, A. (2013).** The effect of affect-based and cognition-based trust. Paper presented at 3rd International Conference on Business Management (ICoBM), UMT, Lahore, Pakistan.

**Abstract:** In this era of knowledge economy when knowledge is considered the most important resource for gaining sustainable competitive advantage, it is necessary for organizations to leverage this resource. Organizations should build interpersonal trust among their employees so that the tacit knowledge which resides in their employees is utilized. The interpersonal trust is of two types i.e. affect-based and cognition-based trust. This study finds the effect of alternative types of trust on the willingness of employees to share and use tacit knowledge using a sample of 102 respondents from different business organizations. The findings support the hypothesis that both type of trust i.e. affect-based and cognition-based trust is important in determining the willingness of employees to share and use their tacit knowledge. Research limitations are discussed in the end.

**Key Words:** Interpersonal trust, affect-based and cognition-based trust, tacit knowledge, willingness to share and use tacit knowledge.

12. **Yazdani, N. (2013).** Emotional labor & big five personality model. Paper presented at 3rd International Conference on Business Management (ICoBM), UMT, Lahore, Pakistan.

**Abstract:** Exhibit of emotions has become a topic of great interest for sociologists and psychologists during the last few years. The main reason of this attention is due to the changes in the structure of economy, as the economy has shifted from the manufacturing to the service industry and more jobs are being offered in the areas of CRM. As a result of which employees are under a considerable stress to hide their emotions and state of mind hence exhibiting a false sense of gregariousness with their customers or in other words to increase the level of their emotional labor. Not all people respond to this challenge similarly. Therefore the main purpose of this study is to expose that a personality plays a pivotal role in understanding and describing the phenomena of emotional labor. Examination of the role of personality in relative to emotional labor may assist us to foresee which individuals are best able to perform emotional labor on the job.

**Keywords:** Not Available

13. **Yazdani, N., & Kausar, A. R. (2013).** Tacit knowledge as a source of competitive advantage in cricket international. *Journal of Knowledge Management & Practices*, 1 (2), 43-50.

**Abstract:** This theoretical paper expounds the basic tenet of knowledge-based-view (KBV) of the firm that tacit knowledge lies at the basis of sustained competitive advantage accrued to a company. This is because tacit knowledge embodies the intangible, valuable, rare, inimitable and non-substitutable human core capabilities and competencies. Taking lead from Berman et al. (2002) study of National Basketball Association (NBA), this paper proposes to use the notion of Collective Mind or stock of tacit knowledge of a Cricket team and suggests a positive relationship between shared team experience (a proxy for tacit knowledge) and team performance. The paper also suggests that over a period of time the relationship may turn negative because of the knowledge ossification or reutilization of tacit knowledge schemas acquired by the players. Future research



implications for other formats of Cricket apart from ODI matches and other sports are also discussed.

**Key words:** Tacit Knowledge, Collective Mind, Sustained Competitive Advantage, Knowledge Ossification, Knowledge Management and Sports.

## School of Governance and Society

### Journal Articles

1. **Feyyaz, M.** (2013). Conceptualizing terrorism trend patterns in Pakistan: An empirical perspective. *Perspectives on Terrorism*, 7(1).

**Abstract:** Terrorism continues to be viewed conventionally in Pakistan. However, the phenomenon has assumed a structured formation driven by rational choice perspectives. This article attempts to identify distinct trends and patterns of terrorism within prevailing environments of Pakistan. In doing so, it also examines the validity of seasonality dimensions of routine activity theory (use of summer months and earlier days of week) for terrorist acts. Eight trends are identified tentatively. Using empirical data and analytical discourse, the findings confirm the assumed trends in terms of their typology, structure, operational system and rallying themes. In addition, the article finds support for the hypothesis of terrorism being a strategic approach rather than an ordinary form of violence. It is further found that changed patterns of violence warrant a revisiting of earlier assumptions regarding the applicability of routine activity theory within the Pakistani context. By implication, the study also suggests a variation of terrorism under different regime types, i.e. military or democratic.

**Keywords:** Not available

2. **Feyyaz, M.** (2013). Multiform youth extremism in Pakistan. *Pakistan Institute of Legislative Development and Transparency (PILDAT)*.

**Abstract:** Not Available

**Keywords:** Not Available

3. **Feyyaz, M.** (2013). Facets of Religious Violence in Pakistan. *Counter Terrorist Trends and Analysis*, 5(2), 9-13.

**Abstract:** Organized violence is a key characteristic of the security landscape of contemporary Pakistan. The character of religious violence has evolved from sectarianism to talibanization. This paper briefly reviews facets of religious violence by focusing on religious structures, inter-sect and intra-sect par-adigms of the conflict-laden environment.

**Keywords:** Not Available

## Learning Resource Center

### Journal Articles

1. **Naveed, M. A. & Anwar, M. A.** (2013). Agricultural information needs of Pakistani farmers. *Malaysian Journal of Library & Information Science*, 18(3), 13-23. 9 (JCR HEC approved)

**Abstract:** This study aims to identify information needs of 84 Pakistani farmers. The study uses face-to-face structured interviews of men, between the ages of 25 and 65 years, actively participating in farming. Their information needs were centered on: soil preparation, seeds, taking care of crops, harvesting activities, and animal husbandry. They depended mainly on interpersonal relationships in meeting their information needs. The role of mass media and printed materials as sources of information was found to be very low. Lack of timely access, low level of education and language barrier were the main problems that these farmers faced while getting the required information. The findings of this study would be helpful in planning and designing need-based information infrastructure for rural farmers. This will add to the existing literature on the topic and will be of help to researchers in developing countries of Asia and Africa.

**Keywords:** Information needs; Agricultural information; Farmers in developing countries; Rural areas; Pakistan.

## School of Commerce and Accountancy

### Conference Papers

1. **Mahmood, M. T.** (2013). *Corporate Governance Structure and Firm Performance in Developing Economies: Evidence from Pakistan*. Paper presented at the 1st Doctoral Conference UMT Lahore.

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Table – 1  
**School/Center/Department wise listing of Publications:**

School/Department Name	Journal Articles	Conference Papers	Books	Total	JCR Approved	HEC Approved (local journals)
<b>School of Business &amp; Economics (SBE)</b>						
• Department of Economics	8	9	1	18	3	1
• Department of Quantitative Methods	1	-	-	1	1	-
• Department of Management	4	2	2	8	-	-
• Department of Operations & Supply Chain	1	-	-	1	-	1
<b>Sub Total</b>	<b>14</b>	<b>11</b>	<b>3</b>	<b>28</b>	<b>4</b>	<b>2</b>
<b>School of Science &amp; Technology (SST)</b>						
• Department of Basic Sciences	5	6	1	12	2	1
• Department of Chemistry	-	4	-	4	-	-
• Department of Mathematics	4	-	-	4	3	-
• Department of Computer Science	-	2	-	2	-	-
<b>Sub Total</b>	<b>9</b>	<b>12</b>	<b>1</b>	<b>22</b>	<b>5</b>	<b>1</b>
<b>School of Social Sciences &amp; Humanities (SSSH)</b>						
• Department of Education	-	-	1	1	-	-
• Department of English Language & Literature	3	-	-	3	-	-
• Department of Special Education	2	-	-	2	-	-
• Department of Social Sciences	-	2	-	2	-	-
• Institute of Communication and cultural Studies	-	1	-	1	-	-
• Department of Clinical Psychology	3	-	1	4	-	2
• Department of Islamic Thought & Civilization	-	1	-	1	-	-
<b>Sub Total</b>	<b>8</b>	<b>4</b>	<b>2</b>	<b>14</b>	<b>-</b>	<b>2</b>
<b>School of Professional Advancement (SPA)</b>						
• School of Professional Advancement	1	3	-	4	-	-
• Organization Theory Centre	3	6	-	9	-	-
<b>Sub Total</b>	<b>4</b>	<b>9</b>	<b>-</b>	<b>13</b>	<b>-</b>	<b>-</b>
<b>School of Textile &amp; Design (STD)</b>						
• School of Textile & Design	3	1	-	4	1	1
<b>Sub Total</b>	<b>3</b>	<b>1</b>	<b>-</b>	<b>4</b>	<b>1</b>	<b>1</b>
<b>School of Engineering (SEN)</b>						
• Department of electrical engineering	4	12	-	16	4	-
<b>Sub Total</b>	<b>4</b>	<b>12</b>	<b>-</b>	<b>16</b>	<b>4</b>	<b>-</b>
<b>School of Governance &amp; Society (SGS)</b>						
• School of Governance & Society	3	-	-	3	-	-
<b>Sub Total</b>	<b>3</b>	<b>-</b>	<b>-</b>	<b>3</b>	<b>-</b>	<b>-</b>



<b>Learning Resource Center (LRC )</b>						
• Learning Resource Center	1	-	-	1	1	-
<i>Sub Total</i>	<i>1</i>	<i>-</i>	<i>-</i>	<i>1</i>	<i>1</i>	<i>-</i>
<b>School of Commerce &amp; Accountancy</b>						
• School of Commerce & Accountancy	-	1	-	1	-	-
<i>Sub Total</i>	<i>-</i>	<i>1</i>	<i>-</i>	<i>1</i>	<i>-</i>	<i>-</i>
<b>Total</b>	<b>46</b>	<b>50</b>	<b>6</b>	<b>102</b>	<b>15</b>	<b>6</b>

**Table – 2**  
**Authors' rank by number of publications**

Author Name	Publications	JCR Approved	HEC Approved
Naveed Yazdani	9		-
Sammia Shahid	8	1	1
Mashood Nasir	7	-	-
Abdul Aziz Bhatti	6	-	-
Muhammad Shahid Hassan	6	1	-
Khuram Shahzad	6	-	-
Rana Zamin Abbas	5	-	-
Rukhsana Kalim	5	2	1
Faran Awais Butt	4	-	
Zahid Mahmood	4	-	2
Ayesha Mohy-ud-Din	4	-	-
Sadia Saleem	4	-	2
Ali Asghar	3	-	-
Muhammad Feyyaz	3	-	-
Abdul Hameed	3	-	-
Asif Hussain	3	-	-
Madiha Jalil	3	-	-
Abdul Rashid Kausar	3	-	-
Muhammad Basit Shahab	3	-	-
Ahmed F. Siddiqi	3	1	-
Aly Raza Syed	3	-	-
Sarwar M. Azhar	2	-	-
Syed Farooq Ali	2	-	-
Aun Haider	2	1	-
Syed Shahid Hussain	2	-	-
Ahmed Malik	2	-	-
Dawood Mamoon	2	1	-
Sufian Munawar	2	2	-
Hasan Sohaib Murad	2	-	-
Abdul Raouf	2	-	1
Muhammad Salik	2	-	-
Muhammad Shoaib	2	-	-
Waqas Tariq Toor	2	-	-
Ayesha Wajid	2	-	
Ijaz Yusuf	2	-	1
Ayesha Zafar	2	-	-

Basit Ali	1	1	-
Fahad Ali	1	-	-
Umer Ayub	1	-	-
Mahrukh Baig	1	-	-
Naveed Akhtar Butt	1	-	-
Imran Ali	1	-	-
Syed Mohsin Ali	1	-	-
Nabeel Amin	1	-	1
Muhammad Ehsan Anjum	1	-	-
Sadia Arshad	1	-	-
Alizaa Fatima	1	-	-
Abdul Ghaffar	1	-	-
Muhammad Imran Haider	1	-	-
Muhammad Haneef	1	-	-
Muhammad Haris	1	-	-
Malik Tahir Hassan	1	-	-
Fatima Idrees	1	-	-
Mehwish Inam	1	-	-
Ayesha Iqbal	1	-	-
Asim Karim	1	-	-
Khalid Mahmood	1	-	-
Mohyuddin Tahir Mahmood	1	-	-
Shumaila Majeed	1	-	-
Akeela Maryam	1	-	-
Muhammad Muaz	1	-	-
Muhammad Tahir Mushtaq	1	1	-
Mavra Naeem	1	-	-
Muhammad Nasir	1	1	-
Muhammad Asif Naveed	1	1	-
Noman Nazar	1	-	-
Muhammad Shaban Rafi	1	-	-
Muhammad Babar Ramzan	1	1	-
M. Arif Saeed	1	-	-
Zaheer Hussain Shah	1	1	-
Sajjad Haider Shami	1	1	-
Iram Shehzadi	1	-	-
Abu Bakar Siddique	1	1	-
Adnan Siddique	1	-	-
Sumera Siddique	1	1	-
Muhammad Tahir	1	1	-
Amjad Waheed	1	-	-

Wasif Ali Waseer	1	-	-
Sammia Yasmin	1	1	-
Sohail Zafar	1	-	-
Salman Zaheer	1	-	-
Waqar Ahmed	1	-	-
Muhammad Adnan	1	-	-
Haris Aslam	1	-	-
Mudassar Abbas	1	-	-