

August 19, 2026

The Managing Director  
Public Procurement Regulatory Authority (PPRA)  
Government of Pakistan

**Subject:** Clarification Regarding Eligibility Criteria for Consultancy Services Bid

Respected Sir/Madam,

This is to formally bring to your kind attention an issue identified in the eligibility criteria of the recently advertised bid on PPRA 2.0 titled “Procurement of Consultancy Services to Design, Deploy, and Operate a National Digital Outreach, Advisory, and Capacity Building Program for MSMEs - Access to All (A2A) (Consultancy Services)” which requires reconsideration.

As per the bidding document, the eligible bidder types include Partnership Firm or Company (Private Limited). However, Lahore University of Management Sciences (LUMS), being a not-for-profit educational institution, does not formally fall within the aforementioned categories despite possessing the relevant institutional expertise and technical capacity required for the assignment.

It is pertinent to mention that LUMS has extensive experience in undertaking research, policy, regulatory, and consultancy assignments through its highly qualified faculty and professionals. Upon review of the scope of work, we believe that the institution is fully capable of successfully carrying out the subject assignment and can make a valuable contribution to the project.

In view of the above, it is respectfully requested that the eligibility criteria may kindly be reconsidered to allow participation of not-for-profit educational institutions such as LUMS, or any other appropriate category as prescribed under PPRA guidelines, so that the institution may be given a fair opportunity to participate in the bidding process.

Your kind consideration and early resolution of this matter will be highly appreciated. Should any additional information or documentation be required, please do not hesitate to contact us.

Best regards,



Dr. Hassan Abbas Khan  
Director  
Office of Research  
Lahore University of Management Sciences

CC. Public Procurement Regulatory Authority (PPRA) (Federal Public Procurement Regulatory Authority (PPRA)), Admin Expert

**Enclosed:**

- A-Certificate of Incorporation
- B- CVs of the relevant professional

# Charter

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**LAHORE UNIVERSITY OF MANAGEMENT SCIENCES**

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



وزیر تعلیم حکومت پاکستان اسلام آباد

MINISTER FOR EDUCATION, GOVERNMENT OF PAKISTAN, ISLAMABAD

No. PS (EM) 112/85

March 3, 1985

Ref: Establishment of Lahore University  
of Management Sciences

The President of Pakistan has been pleased to promulgate an order for the establishment of Lahore University of Management Sciences. It has further been contemplated that the university may establish a Lahore Graduate School of Business Administration with immediate effect. A copy of the ordinance is enclosed.

Encls/1

(Dr. M. Afzal)  
Minister for Education

Chairman,  
National Management Foundation,  
Lahore

# The Gazette of Pakistan

EXTRAORDINARY  
PUBLISHED BY AUTHORITY

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ISLAMABAD, SUNDAY, MARCH 31, 1985

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(PART I)

Acts, Ordinances, President's Orders and Regulations including  
Martial Law Orders and Regulations

GOVERNMENT OF PAKISTAN

**Ministry of Justice and Parliamentary Affairs**

(Justice Division)

*Islamabad, the 31st March, 1985*

No. F. 17(3)/85-Pub — The following Order made by the President on 8th March, 1985, is hereby published for general information :—

PRESIDENT'S ORDER NO. 25 OF 1985

AN

ORDER

*to provide for the establishment of a Lahore University of Management Sciences*

WHEREAS it is expedient to provide for the establishment of Lahore University of Management Sciences and for matters ancillary thereto;

NOW, THEREFORE, in pursuance of the Proclamation of fifth day of July, 1977, and in exercise of all powers enabling him in that behalf, the President is pleased to make the following Order :—

### 1. **Short title and commencement.**

(1) This Order may be called the Lahore University of Management Sciences Order, 1985.

(2) It shall come into force at once.

### 2. **Definitions.**

In this Order, unless there is anything repugnant in the subject or context :—

(a) “Board” means the Board of Trustees of the University;

(b) “Chancellor” means the Chancellor of the University;

(c) “Dean” means the Dean of a school, college, or institute of the University;

(d) “Pro-Chancellor” means the Pro-Chancellor of the University;

(e) “Rector” means the Rector of the University;

(f) “University” means the Lahore University of Management Sciences established under this Order; and

(g) “Vice-Chancellor” means the Vice-Chancellor of the University.

### 3. **Establishment and Incorporation of the University.**

(1) There shall be established at Lahore a University to be called the Lahore University of Management Sciences consisting of :—

(a) the Chancellor, the Pro-Chancellor, the Rector, the Vice-Chancellor, the Deans and other members of the Board;

(b) the members of such councils, committees and other bodies as the Board may establish;

(c) the teachers and students of the University and its constituent units; and

(d) such other officers and members of the staff as may from time to time be specified by the Board.

(2) The University shall be a body corporate by the name of the Lahore University of Management Sciences having perpetual succession and a common seal, with power,

among others, to acquire, hold and dispose off any property or investments and shall by the said name sue and be sued.

#### 4. **Powers and functions of the University.**

The University shall have powers :—

- (a) to provide for instruction and training in management sciences and in such allied branches of learning as it may deem fit, and to make provision for research, demonstrations and other services, and for the advancement and dissemination of knowledge in such manner as it may determine;
- (b) to admit and examine students;
- (c) to hold examinations and confer or award degrees, diplomas, certificates and other academic distinctions on and to persons who have passed its examinations under prescribed conditions;
- (d) to select and promote faculties;
- (e) to confer honorary degrees;
- (f) to prescribe courses of studies in management sciences and such other branches of learning as the University may determine;
- (g) to pursue research;

- (h) to establish and support other facilities for education, training and research;
- (i) to affiliate or associate itself with other institutions, and to establish faculties in Pakistan or abroad for the effective discharge of its functions and responsibilities;
- (j) to decide teaching methods and strategies in order to ensure the most effective educational and training programmes;
- (k) to use its financial and other resources to the fullest extent for the execution of its programmes;
- (l) to enter into agreements, contracts and arrangements with organisations, institutions, bodies and individuals for carrying out its functions and activities;
- (m) to do all such other acts and things as may be required to further its objectives.

#### 5. **University open to all.**

The University shall be open to persons of either sex of whatever religion, race, creed, colour or domicile who are academically qualified for admission to the courses of study offered by the University, and no such person shall be denied the privileges of the University on the ground only of sex, religion, creed, race, class, colour or domicile.

## 6. **Teaching and examinations.**

- (1) The academic programmes of the University shall be conducted in the prescribed manner.
- (2) The University shall associate external examiners for the conduct of examinations.
- (3) No degree shall be granted unless a student has passed an examination in Islamic and Pakistan Studies or, in the case of a non-Muslim student, in Ethics and Pakistan Studies at his option.

## 7. **Officers of the University.**

- (a) the Chancellor;
- (b) the Pro-Chancellor;
- (c) the Rector;
- (d) the Vice-Chancellor;
- (e) the Deans; and
- (f) such other persons as may be specified by regulations to be the officers.

## 8. **The Chancellor.**

- (1) The President of the Islamic Republic of Pakistan shall be the Chancellor of the University.
- (2) The Chancellor shall, when present, preside at the convocation of the University and at all other meetings.

- (3) Every proposal to confer an honorary degree shall be subject to confirmation by the Chancellor.

## 9. **Visitation.**

- (1) The Chancellor may cause an inspection or inquiry to be made in respect of any matter connected with the affairs of the University and shall, from time to time, direct the University Grants Commission or any person or persons to enquire into or carry out inspection of :—
  - (i) the University, its buildings, laboratories, libraries, and other facilities;
  - (ii) any institution, department, school, college or hostel maintained by the University;
  - (iii) the adequacy of financial and human resources;
  - (iv) the teaching, research, curriculum, examinations and other matters of the University; and
  - (v) such other matters as may be specified by him.
- (2) The Chancellor shall communicate to the Board his views with regard to the result of an inspection or inquiry and shall, after ascertaining the view of the Board, advise the Board on the action to be taken by it.
- (3) The Board shall, within such time as may be specified by the Chancellor, communicate to him such action, if any, as has been taken or may be proposed to be taken upon the results of an inspection or inquiry.
- (4) Where the Board does not, within the time specified, take action to the satisfaction of the Chancellor, the Chancellor

### 13. **The Board of Trustees.**

(1) The general supervision and control of the affairs, and the power to lay down the policies, of the University shall vest in a Board of Trustees consisting of the following members, namely :—

- (a) Rector who shall be the Chairman of the Board;
- (b) Vice-Chancellor;
- (c) one Vice-Chancellor of a University located in Lahore to be nominated by the Chancellor;
- (d) four persons, to be nominated by the Board of the National Management Foundation;
- (e) one Judge of the Lahore High Court, to be nominated by the Chief Justice of that Court;
- (f) Chairman, University Grants Commission, or his nominee not below the rank of a Member of the Commission;
- (g) President of the Federation of Pakistan Chambers of Commerce and Industry;
- (h) Principal, Pakistan Administrative Staff College, Lahore;
- (i) one Dean to be nominated by the Rector in consultation with the Vice-Chancellor, who shall also act as Secretary of the Board; and
- (j) not more than three persons, prominent in the field of management sciences because of their experience and attainments, to be nominated by the members referred to in clauses (a) to (i) and approved by the Chancellor.

- (2) A nominated member of the Board shall hold office for a term of three years and shall be eligible for re-nomination on the expiry of his term unless the Chancellor earlier terminates his membership :

Provided that, in the case of the first Board constituted under this Order, one-third of the members for the time being, other than the ex-officio members, to be determined by lot, shall retire from office on the expiration of one year from such constitution one-half of the remaining members, to be determined by lot, shall retire from office on the expiration of two years from such constitution and the remaining one-half shall retire from office on the expiration of the third year.

- (3) The office of a nominated member of the Board shall become vacant if he resigns or fails to attend three consecutive meetings of the Board without sufficient cause or leave of absence.
- (4) A casual vacancy in the office of a member of the Board shall be filled by a person nominated by the authority which had nominated the member whose vacancy is to be filled.
- (5) The Vice-Chancellor shall act as Chairman of the Board in the absence of the Pro-Chancellor and the Rector.
- (6) No act or proceedings of the Board shall be invalid by reason only of the existence of a vacancy in or any defect in the constitution of the Board.

### 14. **Powers and functions of the Board.**

- (1) The Board shall exercise and perform the powers and functions as follows, namely :—

and resources of the University and borrow or raise money for the purposes of the University upon such security as may be required;

- (b) to formulate or approve the principles, policies and plans governing the activities and operations of the University so as to ensure that the academic staff enjoy academic freedom in their research, teaching and other academic work;
- (c) to make rules and regulations;
- (d) to prepare or have prepared and revised from time to time rules and regulations for the efficient and effective operation of the University;
- (e) to create a component of the University such as faculties, schools, colleges and institutes and to constitute such standing committees, councils and other administrative or academic advisory bodies as it deems necessary, and review their work;
- (f) to approve plans of work and annual budget of the University;
- (g) to call for and consider reports relating to the activities of the University and the execution of the plan of work and to direct the Vice-Chancellor to furnish information relating to any matter specified by the Board;
- (h) to create such academic or administrative posts as it may deem necessary and to approve appointments to such posts as it may specify, including the posts of Directors and Professors;
- (i) to undertake responsibility for the financial viability of the University, including responsibility for ensuring effectiveness of its operations, their continuity and preservation of the autonomy of the University.

through which institutions may become associated with the University;

- (k) to appoint from amongst its members such committees or subcommittees as it may deem necessary;
  - (l) to take all such initiatives as it may consider necessary or desirable for the efficient and effective management and functioning of the University; and
  - (m) to lay down its own rules of procedure.
- (2) The Board may delegate any of its powers to the Pro-Chancellor, the Rector or the Vice-Chancellor subject to such conditions as it may deem fit to impose.

### 15. **Meetings of the Board, etc.**

- (1) The Board shall meet at least twice in a year on dates to be fixed by the Chancellor in consultation with the Rector.

Provided that a special meeting may be called at any time on a request having been made by the Pro-Chancellor or by not less than four members of the Board to reconsider any matter of urgent nature.

- (2) In the case of a special meeting not less than ten clear days' notice shall be given to the members of the Board, and the agenda of the meeting shall be restricted to the matter for which the special meeting is called.
- (3) The quorum for a meeting of the Board shall be one half of its members, a fraction being counted as one.
- (4) The decisions of the Board shall be expressed in terms of the views of the majority of the members present and voting and, if the members are equally divided, the Chairman of the Board shall have and exercise a casting vote.

#### 16. **Academic and Administrative Staff.**

The academic and administrative staff of the University shall be selected with a view to achieving its stated objectives and the basic criteria for their selection shall be the highest standards of competence, integrity and efficiency.

#### 17. **University Fund, audit and accounts.**

- (1) The University shall have a Fund to which shall be credited income from fees, donations, trusts, bequests, endowments, grants, contribution, and any other sources including contribution made by the National Management Foundation.
- (2) No contribution, donation or grant which may directly or indirectly involve any immediate or subsequent financial liability of the University, or which may involve an activity not included in its programmes for the time being, shall be accepted without the prior approval of the Board.
- (3) The accounts of the University shall be maintained in such form and in such manner as may be prescribed by rules.
- (4) The accounts of the University shall be audited each year within four months of the closing of the financial year of the University by a Chartered Accountant appointed by the Board.
- (5) The accounts, together with the report of the auditor thereon, shall be submitted to the Board for approval.
- (6) The auditor's report shall certify that the auditor has complied with the standards of audit and certification laid down by the Institute of Chartered Accountants of Pakistan.

#### 18. **Indemnity and bar of jurisdiction.**

- (1) No suit, prosecution or other legal proceeding shall lie against any person or authority for anything which is in good faith done or intended to be done under this Order.
- (2) No decision taken or act or thing done, by the Chancellor or the Board shall be called in question before any court or other authority.

#### 19. **Order to override other laws.**

This Order shall have effect notwithstanding anything contained in any other law for the time being in force.

#### 20. **Removal difficulties.**

- (1) If any question arises as to the interpretation of any of the provisions of this Order, it shall be placed before the Chancellor whose decision thereon shall be final.
- (2) If any difficulty arises in giving effect to any of the provisions of this Order, the Chancellor may make such order, not inconsistent with the provisions of this Order, as may appear to him to be necessary for removing the difficulty.
- (3) Where this Order makes any provision for anything to be done but no provision or no sufficient provision has been made as respects the authority of who, or the time at which, it shall be done, then it shall be done by such authority, at such time, or in such manner as the Chancellor may direct.

21. **Academic Programmes to be subject to approval of University Grants Commission.**

Notwithstanding anything to the contrary contained in this Order, the academic programmes of the University shall be subject to the approval of the University Grants Commission.

22. **Establishment of the School.**

- (1) The University may establish the Lahore Graduate School of Business Administration with immediate effect.
- (2) The regulations for the establishment of the School set out in the Schedule shall be deemed to be regulations made under sub-clause (c) of clause (1) of articles 14 of this Order and shall remain in force until amended or replaced by new regulations.

**Schedule**

**The Lahore Graduate School  
Of Business Administration**

**Regulations**

1. **Establishment of the School.**

There shall be established at Lahore a School to be called the Lahore Graduate School of Business Administration, hereinafter referred to as the School.

2. **Functions of the School.**

The School shall:

- (a) organize and conduct teaching, research and advanced studies in the field of business administration and related disciplines;
- (b) promote cooperation with other schools, institutes and organizations in the field of management sciences and allied disciplines through seminars, colloquia, conferences, staff and students exchanges, scholarships, stipends, bursaries which the Council of the School, hereinafter referred to as the Council, may approve;
- (c) organize studies, surveys and collection of data in the field of business administration and allied disciplines and publish results of this work;
- (d) adopt such other measures to achieve its objectives as the Council may, from time to time, determine.

3. **Council of the School.**

There shall be a Council of the School consisting of:

- (i) a Chairman to be appointed by the Board;
- (ii) a representative of the University Grants Commission not below the rank of a Member of the Commission;
- (iii) a representative of the Ministry of Education not below the rank of Joint Educational Adviser;

- (iv) the Principal of the Pakistan Administrative Staff College, Lahore;
- (v) the Director, Institute of Business Administration, Karachi;
- (vi) the head of the Business or a Public Administration Department of a University, to be nominated by the Pro-Chancellor in consultation with the Vice-Chancellor of the University concerned;
- (vii) three persons from the fields of business, industry and education, to be nominated by the Pro-Chancellor;
- (viii) two experts in business administration, to be nominated by the Board; and
- (ix) one Professor of the School, to be nominated by the Pro-Chancellor in consultation with the Dean of the School, who shall also act as the Secretary of this Council.

#### 4. **Powers and duties of the Council.**

- (1) Subject to these regulations and the general supervision and control of the Board, the Council shall be the executive body of the School and shall exercise general supervision over its affairs.
- (2) In particular and without prejudice to the generality of the foregoing provisions, the Council shall have power to :
  - (a) exercise executive and financial control over the administration of the School;
  - (b) manage properties and assets of the School;
  - (c) prepare the annual budget estimates and annual statement of accounts of the School and make bye-

laws for the financial control and proper administration thereof, and submit them to the Board for its approval;

- (d) lay down and define the functions of the various constituent parts of the School, including its departments, committees and sections;
- (e) sanction schemes for undergraduate, post-graduate and doctoral programmes of teaching and research in business administration leading to the award of degrees in accordance with and under the conditions prescribed;
- (f) develop and approve non-degree programmes of specialized teaching or training leading to the award of diplomas or certificates in areas of business administration to be prescribed;
- (g) approve schemes of faculty development for specialization in business administration and allied disciplines;
- (h) develop and promote collaboration with other appropriate bodies for the development of courses in business administration and allied disciplines;
- (i) secure the services of experts concerned, on terms and conditions agreed upon between the School and the experts or the School and the agency or organization from which the services of the experts are secured;
- (j) lay down the functions and rules of business and procedure for the various organizations and bodies of the School;
- (k) issue directions on administrative and financial matters connected with or incidental to the provisions of these regulations; and

- (l) perform such other functions as may be necessary for the realization of its approved targets and objectives.

## 5. **Chairman of the Council.**

- (i) The Chairman of the Council shall be appointed by the Board for such period and on such terms and conditions as it may determine.
- (ii) The Chairman of the Council shall, when present, preside at the meetings of the Council.
- (iii) In the absence of the Chairman of the Council, meetings of the Council may be presided over by one of its members to be appointed by the members present.
- (iv) The Chairman of the Council shall perform such other functions as may be entrusted to him by the Board or the Council.

## 6. **Dean.**

- (i) There shall be a Dean of the School to be appointed by the Pro-Chancellor in consultation with the Vice-Chancellor on such terms and conditions as he may determine.
- (ii) The Dean of the School shall be the executive and academic head of the School and shall exercise such powers and perform such functions as may be assigned to him by the Chairman or the Council and all other committees of the School.
- (iii) The Council may, from time to time, delegate to the Dean such powers and functions as it may consider necessary for the purpose of these regulations.

- (iv) without prejudice to the generality of the foregoing provision, the Dean shall have power to

- (a) make all appointments to posts equivalent to BPS-16 and below;
- (b) accord formal sanction to the expenditure provided for in the sanctioned budget and to reappropriate funds within the same major heads of expenditure;
- (c) appoint, from time to time, committee (s) or sub-committee(s) for specified periods, with clearly defined functions and terms of reference, for assisting him in academic and administrative affairs of the School.

## 7. **Funds and Reports of the School.**

- (i) The School shall have a Fund to which shall be credited all grants and contributions made by the University or received through gifts and endowments, sale proceeds and royalties on publications, fees and remunerations or from any other source.
- (ii) Grants and other expenditure to be made and incurred by the School under these regulations shall be disbursed out of the Fund and no expenditure shall be made from the Fund unless a bill for its payment has been audited in conformity with the Regulations.
- (iii) The accounts of the School shall be maintained in such form and in such manner as may be prescribed, and shall be audited once in a year by an auditor appointed by the Council.

8. **Annual Statement of Accounts to be submitted to the Board.**

The annual Statement of Accounts and audit report thereon shall be submitted by the auditor for consideration of the Council which shall submit it alongwith its comments to the Board.

GENERAL  
M. ZIA-UL-HAQ,  
President.

MR MOHAMMAD ALI,  
Draftsman/Additional Secretary.

# Fareed Zaffar

Department of Computer Science  
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## Research Interests

My primary research interests are in the areas of security, privacy and Internet measurement. My recent work has focused on social networks, online fraud and cybercrime. I am also interested in the use of program analysis techniques to make software efficient, compact and secure. In the past, my work was geared towards designing solutions to address problems with security and accountability in networked systems. I have also done extensive work in enabling public sector reform through technology and the use of information and communication technologies for development.

## Education

- July 2008 **Ph.D in Computer Sciences.**
  - Duke University, Durham, North Carolina:
    - Dissertation Topic: "Countering Malware through cooperative forensics sharing"
    - Advisor: Gershon Kedem
- May 2004 **M.S in Computer Sciences, .**
  - Duke University, Durham, North Carolina:
    - Dissertation Topic: "Paranoid: A Global Secure File Access Control System"
- Dec 1999 **Bsc. Hons in Computer Sciences, .**  
Lahore University of Management Sciences, Lahore

## Professional Experience

- 2020-Date **Associate Professor with tenure.**  
Department of Computer Science, Lahore University of Management Sciences
- 2022-Date **Advisor .**  
Knowledge Streams
- 2013-2019 **Assistant Professor.**  
Department of Computer Science, Lahore University of Management Sciences
- 2009-2012 **Visiting Professor.**  
Department of Computer Science, Lahore University of Management Sciences
- 2003- 2006 **Research Associate.**
  - Fuqua School of Business, Duke University, NC
    - Dr. Wilfred Amaldoss and Dr. Miguel Sousa Lobo
- 2011 **International Research Fellow.**
  - SRI International, Menlo Park, CA
    - hosted by Dr. Ashish Gehani
- 2001-2002 **Research Associate.**
  - IBM, Research Triangle Park, NC
    - Tivoli Kernel Services (Rich Hall)
    - Autonomic Computing group (David Kaminsky)

2012-Date **Principal Investigator, Technology for People Initiative.**

- Applied research and design centre that leverages technology to create innovative, low-cost and practical solutions to problems prevalent in the public and development sector. TPI has been working with international and local civil society organizations and various departments of the government to develop solutions in healthcare, education, governance, and accountability. Projects include:

- Implementation Partners, DFID-Sub-National Governance program, Pakistan
- Case-Flow Management System for district courts, prosecution departments
- Automated diagnosis and epidemiology for infectious diseases using immune biomarkers
- Automated News and social Media analysis and curation
- Automation of school education department at district level
- Using technology to improve Child Protection Services in four provinces
- Learn While you teach: Inservice teacher training for govt departments

2024-Date **Public Investment Management Digitization, P&D department.**

Leading the end to end process flow digitisation of the P&DB, it attached bodies and autonomous departments for improving Public Investment Management efficiency in Punjab. The work involves an extensive business process overview and redesign.

- The work is being done in collaboration with OPM and the Punjab Planning & Development Board. We are providing technical support for the end-to-end process flow digitalization for the P&D activities. We have conducted an assessment exercise to identify gaps in the multiple digital systems currently deployed within the board. Based upon this assessment, we are proposing solutions aimed at reducing inefficiencies and redundancies, and overall improving the Board's capacity for public investment management.

2023-Date **PIFRA Budgetary analytics, Sub National Governance project, OPM .**

- As part of Oxford Policy Management's Sub National governance project, i was involved in the analysing and restructuring the public finance system by equippingh selected departments within the Government of Punjab (GoP) with sophisticated analytical tools to inform and enhance budgetary decisions. The core objective was to refine the budgetary process, boosting both control over and predictability of budget execution across various government entities and levels. The intervention involved several key phases:
  - Mapped out the complete business processes of the finance department with a view to improve efficacy and efficiency of decision making
  - Designed and implemented intuitive dashboards and AI based tools to aggregate and analyze data relevant to budget creation and management processes.
  - The solution includes features for detailed analysis, offering insights into financial allocation, spending patterns, and potential areas for efficiency improvements.

2017-2023 **Child Protection Information Management System, UNICEF, OPM .**

- This project established a case management system for UNICEF's child protection initiative, providing an online platform to digitise records of child abuse cases in Pakistan, enabling authorities to efficiently monitor case progress and operationalize child protection mechanisms across the country. The intervention involved several key phases:
  - Conducted extensive nation-wide feasibilities and assessed the need for a comprehensive CPIMS.
  - Designed and implemented customised system for all the provinces and territories according to local regulations.
  - Developed a robust online interface designed for managing the intricacies of child abuse case records, with the capacity to handle the scale of data efficiently.
  - Implemented a system that facilitates real-time tracking of case progress, aiding authorities in making informed decisions.
  - The platform supported interdepartmental coordination, vital for a comprehensive response.

- 2023-2024 **Data Governance and Cyber Security Expert, Adam Smith International .**
- Over the last year, as part of the REMIT project, i have worked extensively with the Federal Board of revenue on two main themes. We conducted a thorough institutional review of the overall systems at FBR and PRAL and designed and implemented a robust "Data Governance Policy" , with the aim of enhancing data management practices to ensure privacy, security, accuracy, and regulatory compliance. The intervention involved several key phases:
    - Assessed existing data management practices to identify improvement areas in data privacy, integrity, and access control
    - Developed comprehensive data governance policies addressing privacy, integrity, and access.
    - Collaborated with departments for policy integration and conducted training for awareness
    - Established a framework for policy review, violation reporting, and investigation.
- 2023-2024 **Compliance Risk Management, Adam Smith International .**
- As part of our engagement with the audit team at FBR, we established a comprehensive framework for applying data science and machine learning techniques to widen the tax base, enhance tax analysis, and improve the precision of audit selections. We developed several POC use-cases after a thorough interaction with and observation of the current system and developed a scalable pipeline for applying these techniques to new datasets, along with training sessions for staff to ensure seamless integration and execution.
- 2018 **Chief-Minister's Education task-force.**
- Deliberate and formalize recommendations for higher education policy in Punjab
    - Focal-person: Faculty development for better learning and research outcomes in Punjab
    - Member: Fostering research, innovation and developing partnerships with businesses
- 2015-2016 **Senior Expert for business process and Court automation.**
- European Union-GDSI Punjab Access to Justice program,
  - The scope of work includes documentation of up to date statistics and existing processes in the courts in the southern districts of Punjab. The responsibilities include an analysis of the documented material with an aim to streamline laws and procedures to highlight service delivery gaps which can serve as a foundation for any future interventions.
- 2014, 2018 **National consultant: Data Management and Digitisation.**  
Deutsche Gesellschaft für Internationale Zusammenarbeit, GIZ, Pakistan
- 2010-2014 **Member Judicial Automation Committee.**
- National Judicial Automation Commission: Justice Jawwad S. Khawaja,
  - Punjab Judicial Automation Committee: working with Justice Syed Mansoor Ali Shah

## Industry Impact

- |                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Law and Justice sector  | My group at TPI was the first group to advocate and demonstrate the use of technology in the criminal justice system of Punjab for transparency, accountability and procedural oversight. Working in close collaboration with the Lahore high-court and Supreme court, we were able to successfully implement a complete case-flow management system in district-courts(Sheikhupura) and the prosecution departments(Punjab and KPK).                                                                                                    |
| Local Software industry | My group has identified serious data vulnerabilities with critical systems and worked with industry and government partners to help patch these systems. Examples of these sensitive systems include Lahore high-court, Punjab information technology board and various industry partners including the top ride-sharing app, job portals, the top diagnostics lab with sensitive patient records, food delivery apps etc. We are also actively involved in helping educate the local industry on data privacy, security and provenance. |
| Facebook                | Our work with Dr. Zubair shafiq(Iowa) on OAuth token abuse and reputation manipulation on facebook has led to significant changes in Facebook's graph API and the resulting counter-measures were developed in collaboration with our group.                                                                                                                                                                                                                                                                                             |

## News Coverage

### Facebook Fake Likes.

- <http://fortune.com/2017/09/09/fake-news-facebook-russia-likes/>
- <http://www.cnet.com/news/fake-likes-researchers-uncover-facebook-collusion-networks/>
- <http://www.cbsnews.com/news/collusion-network-facebook-flaw-leads-to-millions-of-fake-likes/>
- <http://www.dailymail.co.uk/news/article-4868848/Facebook-flaw-allows-generating-illicit-likes.html>

### Reddit Moderation.

- Why Reddit Is Losing Its Battle with Online Hate
- <https://www.motherjones.com/politics/2019/08/reddit-hate-content-moderation/>

### Technology for the People Initiative.

- <http://pakistanistoday.com.pk/2018/03/21/case-management-and-monitoring-system-launched-for-kp/>
- <https://propakistani.pk/2013/09/23/10th-annual-pasha-ict-awards-2013-held/>

## Publications

- ESORICS **SoK: A Tale of Reduction, Security, and Correctness-Evaluating Program Debloating Paradigms and Their Compositions.**  
Muaz Ali, Muhammad Muzammil, Faraz Karim, Ayesha Naeem, Rukhshan Haroon, Muhammad Haris, Huzaifah Nadeem, Waseem Sabir, Fahad Shaon, Fareed Zaffar, Vinod Yegneswaran, Ashish Gehani, Sazzadur Rahaman  
European Symposium on Research in Computer Security 2023
- Intelligent Systems **Rethinking Homework in the Age of Artificial Intelligence.**  
H Ibrahim, R Asim, F Zaffar, T Rahwan, Y Zaki  
IEEE Intelligent Systems 2023
- arxiv **WASEF: Web Acceleration Solutions Evaluation Framework.**  
M Chaqfeh, R Tahir, A Rehman, J Kupoluyi, S Ullah, R Coke, M Junaid,  
arXiv preprint arXiv:2304.09568 2023
- PNAS **Towards a World Wide Web without digital inequality.**  
Moumena Chaqfeh, Rohail Asim, Bedoor Alshebli, Fareed Zaffar, Talal Rahwan, Yasir Zaki  
Proceedings of the National Academy of Sciences , Vol. 120 No. 3 January 17, 2023
- IEEE-NFV **FORTIFY: Software Defined Data Plane Resilience.**  
U Farooq, M Anwar, H Noor, R Tahir, S Prabhu, A Kheradmand, M Caesar,  
IEEE Conference on Network Function Virtualization and Software Defined Networks 2022
- ASE **Trimmer: Context-Specific Code Reduction.**  
AA Ahmad, M Anwar, H Sharif, A Gehani, F Zaffar  
37th IEEE/ACM International Conference on Automated Software Engineering, 2022
- IC2E **PACED: Provenance-based Automated Container Escape Detection.**  
M Abbas, S Khan, A Monum, F Zaffar, R Tahir, D Eyers, H Irshad,  
IEEE International Conference on Cloud Engineering (IC2E), 2022
- CS **An internet of secure and private things: A service-oriented architecture.**  
A Showail, R Tahir, MF Zaffar, MH Noor, M Al-Khatib, M Abbas,  
Computers and Security, 2022
- ICTD **To block or not to block: Accelerating mobile web pages on-the-fly through Javascript classification.**  
M Chaqfeh, M Haseeb, W Hashmi, P Inshuti, M Ramesh, M Varvello,  
Proceedings of the 2022 International Conference on Information and Communication Technologies and Development 2022
- ICWSM **Are Proactive Interventions for Reddit Communities Feasible?.**  
H Habib, MB Musa, MF Zaffar, R Nithyanand  
Proceedings of the International AAAI Conference on Web and Social Media 2022

- PETS **Analyzing the feasibility and generalizability of fingerprinting Internet of Things devices.**  
D Ahmed, A Das, F Zaffar  
Proceedings on Privacy Enhancing Technologies 2022
- NDSS **Forensic analysis of configuration-based attacks.**  
Muhammad Adil Inam, Wajih Ul Hassan, Ali Ahad, Adam Bates, Rashid Tahir, Tianyin Xu, Fareed Zaffar  
Proceedings of the 2022 Network and Distributed System Security Symposium 2022
- IMC **Trackersift: Untangling mixed tracking and functional web resources.**  
AH Amjad, D Saleem, MA Gulzar, Z Shafiq, F Zaffar  
Proceedings of the 21st ACM Internet Measurement Conference, 569-576
- PACT **Accelerating fourier and number theoretic transforms using tensor cores and warp shuffles .**  
S Durrani, MS Chughtai, M Hidayetoglu, R Tahir, A Dakkak,  
2021 30th International conference on parallel architectures and compilation
- arXiv **Avengers ensemble! Improving transferability of authorship obfuscation .**  
M Haroon, F Zaffar, P Srinivasan, Z Shafiq  
arXiv preprint arXiv:2109.07028
- TSE **Trimmer: An Automated System for Configuration-Based Software Debloating .**  
AA Ahmad, AR Noor, H Sharif, U Hameed, S Asif, M Anwar, A Gehani, ...  
IEEE Transactions on Software Engineering 48 (9), 3485-3505
- ICC-workshop **Bounceback-a ddos attack using unsuspecting accomplices in the network .**  
S Alshangiti, M Alahmadi, M Alkhatib, R Tahir, F Zaffar  
IEEE INFOCOM 2021-IEEE Conference on Computer Communications Workshops
- CHI **Seeing is believing: Exploring perceptual differences in deepfake videos .**  
R Tahir, B Batool, H Jamshed, M Jameel, M Anwar, F Ahmed, MA Zaffar, ...  
Proceedings of the 2021 CHI Conference on Human Factors in Computing Systems
- CHI **Through the looking glass: Learning to attribute synthetic text generated by language models .**  
S Munir, B Batool, Z Shafiq, P Srinivasan, F Zaffar  
Proceedings of the 16th Conference of the European Chapter of the Association for Computational Linguistics
- IEEE-ICS **Phishcasting: Deep Learning for Time Series Forecasting of Phishing Attacks .**  
SHA Mahmood, SMA Abbasi, A Abbasi, F Zaffar 2020 IEEE International Conference on Intelligence and Security Informatics
- 2020**
- WWW **Apophanies or Epiphanies? How Crawlers Impact Our Understanding of the Web.**  
Syed Suleman Ahmad, Muhammad Daniyal Dar, Muhammad Fareed Zaffar, Narseo Vallina-Rodriguez, Rishab Nithyanand,  
Proceedings of The Web Conference, 2020
- arXiv **Towards Characterizing the COVID-19 Awareness on Twitter.**  
M Saad, M Hassan, F Zaffar,  
arXiv preprint arXiv:2005.08379
- PoPETS **CanaryTrap: Detecting Data Misuse by Third-Party Apps on Online Social Networks.**  
Shehroze Farooqi, Maaz bin Musa, Zubair Shafiq, Fareed Zaffar,  
20th Privacy Enhancing Technologies Symposium, 2020
- 2019**
- PoPETS **A Girl Has No Name: Automated Authorship Obfuscation using X-Mutant.**  
Asad Mahmood, Faizan Ahmad, Zubair shafiq, Padmini Srinivasan, Fareed zaffar,  
19th Privacy Enhancing Technologies Symposium, 2019
- INFOCOM **Guardian-A Smart Cloud Fabric for Virtual Patching and Customized Defenses.**  
Rashid Tahir, Abdur Rahman Al-Ahmadi, Bashayyer Al-Sharyoufi, Rajin Azzouni, Fareed Zaffar,  
IEEE INFOCOM 2019-IEEE Conference on Computer Communications Workshops, 2019

- arXiv **To Act or React: Investigating Proactive Strategies For Online Community Moderation.**  
Hussam Habib, Maaz Bin Musa, Fareed Zaffar, Rishab Nithyanand,  
arXiv preprint arXiv:1906.11932, 2019
- ASONAM **Bringing the Kid back into YouTube Kids: Detecting Inappropriate Content on Video Streaming Platforms.**  
Hammas Syed, Shiza ali, Faizan Ahmad, Rashid Tahir, Christo Wilson, Fareed zaffar,  
International Conference on Advances in Social Networks Analysis and Mining, 2019
- INFOCOM **The Browser strikes back: Countering Cryptojacking and Parasitic Miners on the Web.**  
Rashid Tahir, Sultan Durrani, Faizan Ahmad, Hammas Saeed, Fareed Zaffar, Saqib Ilyas  
IEEE International Conference on Computer Communications, 2019  
(CORE rank: A\*)
- CACM **Measuring and Mitigating OAuth Access Token Abuse by Collusion Networks.**  
Shehroze Farooqi, Fareed Zaffar, Nektarios Leontiadis, Zubair Shafiq,  
Communications of the ACM, 2019
- NDSS **Quantity vs Quality Evaluating User Interest Profiles Using Ad Preference Managers.**  
Muhammad Ahmad Bashir, Umar Farooq, Maryam Shahid, Fareed Zaffar, Christo Wilson  
Proceedings of the Network and Distributed System Security Symposium, 2019  
(CORE rank: A\*)

## 2018

- INFOCOM **Its all in the name: Why some URLs are more vulnerable to typosquatting.**  
Rashid Tahir Khan, Ali raza, Faizan Ahmad, Jehangir Kazi, Chris Kanich, Mathew Caesar,  
IEEE International Conference on Computer Communications, 2018  
(CORE rank: A\*)
- IEEE NCA **Using SGX-Based Virtual Clones for IoT Security.**  
Rashid Tahir, Ali Raza, Fareed Zaffar, Faizan UI Ghani, Mubeen Zulfiqar.  
17th IEEE International Symposium on Network Computing and Applications 2018  
(CORE rank: A)
- SECURECOM **Detecting and Defending Against Certificate Attacks with Origin Bound Captchas.**  
Adil Ahmad, Faizan Ahmad, Wei Lei, Vinod Yegneswaran, Zaffar Fareed.  
14th EAI International Conference on Security and Privacy in Communication Networks, 2018  
(CORE rank: B)
- ASE **Trimmer: Application Specialization for Code Debloating.**  
Hashim Sharif, Muhammad Abubakar, Ashish Gehani, Fareed Zaffar,  
33rd IEEE/ACM International Conference on Automated Software Engineering, 2018  
(CORE rank: A)

## 2017

- ICDM **Accurate Detection of Automatically Spun Content via Stylometric Analysis.**  
Usman Shahid, Shehroze Farooqi, Raza Ahmad, Zubair Shafiq, Padmini Srinivasan, Fareed Zaffar,  
IEEE International Conference on Data Mining, 2017  
(CORE rank: A\*)
- IMC **Measuring and Mitigating OAuth Access Token Abuse by Collusion Networks.**  
Shehroze Farooqi, Fareed Zaffar, Nektarios Leontiadis, Zubair Shafiq,  
ACM Internet Measurement Conference, 2017  
(CORE rank: A)  
Best Paper award

- RAID Mining on Someone Else's Dime: Mitigating Covert Mining Operations in Clouds and Enterprises.**  
Rashid Tahir, Muhammad Huzaifa, Anupam Das, Mohammad Ahmad, Carl Gunter, Fareed Zaffar, Matthew Caesar, Nikita Borisov  
20th International Symposium on Research in Attacks, Intrusions and Defenses, 2017  
(CORE rank: A)
- CCGrid Cloud-Centric Framework for Anomaly Detection Using Collaborative VM Communities.**  
Rashid Tahir Khan, Ali Raza, Fareed Zaffar, Mathew Caesar  
17th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing, 2017  
(CORE rank: A)
- PLoS one Field Evaluation of a Blood Based Test for Active Tuberculosis in Endemic Settings.**  
Aasia Khaliq, Resmi Ravindran, Syed Fahadulla Hussainy, Viswanathan V. Krishnan, Atiq Ambreen, Noshin Wasim Yusuf, Shagufta Irum, Abdul Rashid, Muhammad Jamil, Fareed Zafar, Muhammad Nawaz Chaudhary, Puneet K. Gupta, Muhammed Waheed Akhtar, Imran H. Khan  
PLoS one, D-16-46248R1, 2017  
(Impact factor:2.77)
- AMCIS Aspect Based Sentiment Analysis for Large Documents with Applications to US Presidential Elections.**  
Raza Ahmad, Ahsan Pervaiz, Humdah Mannan, Fareed Zaffar  
Americas Conference on Information Systems, 2017  
(CORE rank: A)
- PACIS Decision Tree inspired Classification Technique for Robust Detection of Tuberculosis'.**  
Syed Fahadulla Hussainy, S. Raza Ahmad, Aasia Khaliq, Adeel Zaffar, Fareed Zaffar, Imran H. Khan.  
Pacific Conference on Information Systems, 2017  
(CORE rank: A)
- eCrime Measurement and Characterization of Seller-Driven Black-Hat Marketplaces.**  
Shehroze Farooqi, Muhammad Ikram, Gohar Irfan, Emiliano De Cristofaro, Arik Friedman, Guillaume Jourjon, Mohamed Ali Kaafar, M. Zubair Shafiq, Fareed Zaffar  
12th Symposium on Electronic Crime Research, 2017

## 2016

- INFOCOM Sneak-Peek: High Speed Covert Channels in Data Center Networks.**  
Rashid Tahir Khan, Fareed Zaffar, Mathew Caesar, Taha Khan, Adnan Ahmed.  
IEEE Conference on Computer Communications , 2016  
(CORE rank: A\*)
- NSDI MegaVM: Redefining Scalability in Datacenters, Poster.**  
Rashid Tahir Khan, Gohar Irfan, Bilal Bakht, Hashim Sharif, Fareed Zaffar, Mathew Caesar  
13th USENIX Symposium on Networked Systems Design and Implementation, 2016
- NDSS Sneak-Peek: High Speed Covert Channels in Data Center Networks, Poster.**  
Rashid Tahir, Mohammad Taha Khan, Xun Gong, Adnan Ahmed, Amerimad Ghassami, Hasanat Kazmi, Matthew Caesar, Fareed Zaffar, Negar Kiyavash,  
23rd Annual Network and Distributed System Security Symposium, 2016  
(CORE rank: A\*)
- IEEE-NCA To Route or To Secure: Tradeoffs in ICNs over MANETs.**  
Hasanat Kazmi, Ashish Gehani, Hasnain Lakhani, Fareed Zaffar, Rashid Tahir  
15th IEEE International Symposium on Network Computing and Applications , 2016  
(CORE rank: A)
- DSN Malware SLUMS: Measurement and Analysis of Malware on Traffic Exchanges.**  
Salman Yousuf, Umar Iqbal, Raza Ahmad, Shehroze Farooqi, Fareed Zaffar, Zubair Shafiq  
46th Annual IEEE/IFIP International Conference on Dependable Systems and Networks, 2016  
(CORE rank: A)

DG.o **Improving security awareness in the government sector.**  
 Umer Naeem, Raymond choo, Adeel zaffar, Fareed Zaffar  
 17th Annual International Conference on Digital Government Research, 2016  
 (CORE rank: B)  
 Best Paper nominee

2015-

- AMCIS **Who's holding the bag. Promoting accountability in the Criminal Justice system through technology.**  
 Usama Rafi, Umer Naeem, Shehroze Farooqi, Muhammad Adeel Zaffar, Fareed Zaffar  
 Americas Conference on Information Systems 2015  
 (CORE rank: A)
- PACIS **A Classification Based Framework to Predict Viral Threads.**  
 Hashim Sharif, Saad Ismail, Shehroze Farooqi, Taha Khan, Ali Gulzar, Hasnain Lakhani, Fareed Zaffar, Ahmed Abbasi  
 Pacific Asia Conference on Information Systems, 2015  
 (CORE rank: A)
- SocialCom **Detecting Adverse Drug Reactions using a Sentiment Classification Framework.**  
 Sharif, H., Abbasi, A., Fareed Zaffar, Zimbra, D.  
 In the 6th ASE International Conference on Social Computing, Stanford, 2014  
 (CORE rank: B)
- HICSS **Finding Needle in the Case-Stack: Effective Remote Monitoring of Courts.**  
 Amn Rahman, Hassan Nawaz, Omer Naeem, Fareed Zaffar, Farooq Naseer, Adeel Zaffar  
 Hawaii International Conference on System Sciences, 2014  
 (CORE rank: A)
- IEEE-ICC **Covert channels in online rogue-like games.**  
 Hasnain Lakhani, Fareed Zaffar  
 IEEE International Conference on Communications, 2014  
 (CORE rank: B)
- HICSS **Optimized Rollback and Re-computation.**  
 Hasnain Lakhani, Rashid Tahir, Azeem Aqil, Fareed Zaffar, Dawood Tariq, Ashish Gehani  
 46th IEEE Hawaii International Conference on Systems Science IEEE Computer Society, 2013  
 (CORE rank: A)
- DPDM **Sketching Distributed Data Provenance, Data Provenance and Data Management for eScience.**  
 Tanu Malik, Ashish Gehani, Dawood Tariq, Fareed Zaffar  
 Data Provenance and Data Management for eScience, Lecture Notes in Computer Science, Vol. 7092, Springer, 2012
- ACM-SAC **Identifying the Provenance of Correlated Anomalies.**  
 Dawood Tariq, Basim Baig, A. Gehani, Salman Mahmood, Rashid Tahir, Azeem Aqil, Fareed Zaffar  
 26th ACM Symposium on Applied Computing, 2011  
 (CORE rank: B)
- ACM-Grid **Fine-Grained Tracking of Grid Infections.**  
 A. Gehani, Basim Baig, Salman Mahmood, Dawood Tariq, Fareed Zaffar  
 11th ACM/IEEE International Conference on Grid Computing, 2010  
 (CORE rank: A)
- ACSAC **Paranoid: A Global Secure File Access Control System.**  
 Fareed Zaffar, Gershon Kedem, Ashish Gehani  
 21st Annual Computer Security Applications Conference, 2005  
 (CORE rank: A)

## Funding and Grants

**Rethinking Cybersecurity in Pakistan - Human factors' Essential Role.**

Funding Agency: Erasmus+: Higher Education - International Capacity Building

Amount: Euro 1,000,000.00

Grant Role: Co-PI

Year: 2020

**Data Management and Digitisation in the Criminal justice system.**

Funding Agency: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)

Amount: PKR 340,000

Grant Role: Principal Investigator

Year: 2018

**Cyber Security Lab as part of National Center for Cyber Security.**

Funding Agency: Higher Education Commission of Pakistan

Amount: PKR 100,000,000

Grant Role: Co-PI(25%)

Year: 2018-21

**Development of Child Protection Case Management and Referral System .**

Funding Agency: UNICEF, Oxford Policy Management Ltd

Amount: PKR 10,040,000

Grant Role: Principal Investigator

Year: 2018-20

**Case Flow Management system design and implementation, KPK Prosecution Department.**

Funding Agency: UNODC, United Nations Organization on Drugs and Crime

Amount: PKR 3,400,000

Grant Role: Principal Investigator

Year: 2017-19

**Countering Collusion networks on Facebook.**

Funding Agency: Facebook

Amount: PKR 840,000

Grant Role: Principal Investigator

Year 2016-17

**Computational Modeling of Active TB Using Clinical, Immunological and Radiological Data.**

Funding Agency: HEC-USAID: Pakistan - United States Science Technology Cooperation Program

Amount: USD 135,520

Grant Role: Co-PI (25%)

Year: 2016-18

**Access to Justice for Poor and Vulnerable Groups .**

Funding Agency: EU-Global Development Services International (GDSI)

Amount: PKR 3,079,560

Grant Role: Principal Investigator

Year: 2015

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## Honors and Awards

- 2017 **Best Paper award**, *Internet Measurement Conference*.
- 2010 **Research fellowship**, *SRI International, Menlo Park, CA*.
- 2000-2004 **Graduate research fellowship**, *Duke University*.
- 1999 **All Pakistan National Software Competition Pakistan**, *Second Position*.
- 1996-2000 **Lahore University of Management Sciences (LUMS)**.
  - Manzur-ul-Haq Scholar of the Year 1997-98
  - Dean's Honours List 1996-1999
  - Full merit Scholarship 1996-1999

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## Internal and External Service

### External

- Conference RAID, TaPP, Securecomm, PPCloud, European conference on Information systems, Associate
- TPC/Reviewer Editor for the Data Science and Predictive Analytics Track, ICIS, Journal of Computer and security,
- Member Academic Advisory board, Namal college Mianwali
- Member Chief Ministers task force on Education Reform
- Member National Judicial automation Committee

### Internal

- 2011-Date Principal Investigator TPI, Technology for People Initiative, LUMS
- 2014-15 Faculty Council, Deputy Speaker
- 2018 Member School Curriculum Committee
- 2017-18 Departmental Undergraduate Curriculum Committee
- 2017-18 Departmental Faculty Search Committee
- 2017-18 Departmental Space Committee
- 2014-2015 Technology Risk Committee
- 2014 Member Entrepreneurship working group
- 2016 University Sports Committee
- 2016 University Housing Committee
- 2017-Date co-Patron Spades Society at LUMS
- 2014-Date Patron Gaming Society at LUMS
- 2012-Date Patron Chess Society LUMS