

Muhammad Ahsan Asim

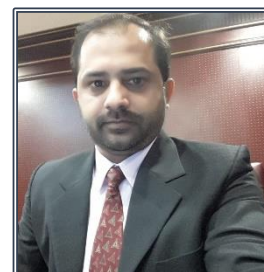
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Associate Teaching Professor
Division of Computing, Analytics and Mathematics (DCAM)
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Educations:

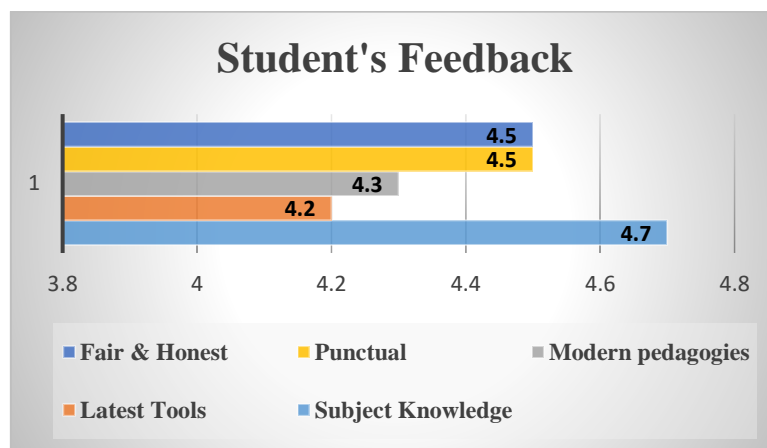
- 2015 to 2019** **Doctor of Philosophy (Ph.D.)**
Mathematical Sciences (Algorithmic Approach for Irregular Labeling for Certain Graphs).
University Malaysia Terengganu (UMT) Malaysia.
- 2006 to 2008** **Master of Science (MScS) in Computer Science**
(Combinatorial structures as Testing tool for Networks / Software)
Blekinge Institute of Technology (BTH), Sweden
- 2003 to 2005** **Master in IT (MIT)**
Preston University Pakistan
- 1999 to 2003** **Bachelor of Computer Science (BCS)**
University of Punjab, Pakistan.

Teaching Experience (14 Years):

- 2023 till date** **Associate Teaching Professor @ UMKC**
- 2010 to 2022** **Faculty Member in Department of IT & Security**
Jazan University (JU), Saudi Arabia
- Head of Curriculum Committee
 - Program Quality Coordinator
- 2008 to 2009** **Assistant Professor, Department of CS**
GC University (GCU), Lahore Pakistan
- MS Program Manager
 - MS Thesis Supervisor / Viva Examiner
- 2005 to 2006** **Faculty Member, Affiliated Campuses of**
Allama Iqbal Open University (AIOU), Pakistan
- Instructor
 - Graduation Projects Supervisor

Courses Taught

- **Graduate Level**
 - Advanced Algorithms Analysis
 - Research Methodology
 - Master Thesis Supervision
- **Undergraduate Level**
 - Discrete Mathematics
 - Data Structures
 - Algorithms Analysis
 - Software Engineering
 - Computer Graphics
- **Students Feedback on 5 Likert Scale (as course teacher) 2020-21**



- **Supplementary Teaching Responsibilities**

In addition to teaching of these courses, I am serving as course coordinator of Algorithms Analysis and Software Engineering. This additional job demands managerial skills to contact with faculty members of all four campuses (Male, Female, Sabya Branch and AbuArish Branch) for collecting their feedback to revise the course material annually. For this purpose, I write the course specifications and course reports to observe and enhance the overall quality of the course.

Main Contents of These Documents:

- Course Objectives & Course Learning Outcomes (CLOs)
- Theory & Lab Material / Weekly Distribution
- Latest Teaching Strategies
- Assessment Methods
- Exam Rubrics
- Item Analysis and CLOs Achievement
- Students Feedback (Individual / Comprehensive)

- **Academic Excellence Activities:**

2017 till Date Head of Quality Assurance Unit (QAU) at College Level:

I am serving as head of QAU to prepare the three programs under the college for NCAAA and ABET Accreditation. In result of these great efforts, Computer Engineering and Networks program achieved NCAAA accreditation in 2021. While BCS and BIS programs have submitted their quality dossiers to NCAAA this year. Nowadays QAU is preparing the documents for all three programs for ABET Accreditation as next milestone. This job covers major responsibilities like:

- Preparation and implementation of SOPs
- Development of Strategic Plan and Strategic KPIs
- Development of Five-Year Implementation Plan
- Designing and conducting surveys to measure performance indicators
- Completion of NCAAA-SSR
- Arranging seminars, workshops, and meetings with faculty
- Evaluation and improvement of course files according to curriculum

2011-2017 Vice-head of QAU: This was a great learning period in which I polished my administrative, interpersonal and communication skills. I assisted two different QAU heads (one from Malaysia and other from Canada). I worked with a team of 30 members from three departments. This position taught me leading abilities and in return I was promoted as Head of QAU in 2017.

- **Head of Curriculum Review Committee**

I am serving as head of curriculum review committee in the department, this job was assigned to me when university decided to change the Department of Information Systems (IS) to Department of IT and Security to launch more latest and job-oriented programs.

2017-2019 Bachelor in IT (BIT): Four-year degree plan, developed under my supervision and approved from Ministry of Education in 2019. BIT program was developed by using Delphi Technique to meet the ACM guidelines, ABET & NCAAA Standards.

2019-2021 MS Cybersecurity: Two-year master degree plan developed under my supervision in 2021, which is currently under the approval stage from Ministry of Education. This plan is developed to meet the market need after conducting SWOT analysis. To justify the appropriateness of plan courses are benchmarked with ten international universities.

• **Publications in Refereed Journals:**

<https://www.researchgate.net/profile/Muhammad-Asim-44>

- 2022**
1. A. Ahmad, K. Elahi, M. Azeem, S. Swaray, M. A. Asim, “ Topological Descriptors for the Metal Organic Network and Its Structural Properties”, Hindawi, Journal of Mathematics, 2022.
 2. A. N. A. Koam, A. Ahmad, **M. A. Asim**, M. Azeem, “Computation of Vertex and Edge Resolvability of Benzenoid Tripod Structure” Journal of King Saud University-Science, **2022**.
 3. K. K. Yoong, R. Hasni, G. C. Lau, **M. A. Asim**, “Reflexive Edge Strength of Convex Polytopes and Corona Product of Cycle with Path”, AIMS Mathematics 7(7), **2022**.
 4. S. Husain, F. A. Abolaban, A. Ahmad, **M. A. Asim** and Y. Ahmad “On Vertex-Edge-Degree Topological Descriptors for Certain Crystal Networks”, Journal of Computer Systems Science & Engineering (CSSE), 40(3), **2022**.
- 2021**
5. H. Raza, M. F. Nadeem, A. Ahmad, **M. A. Asim**, M. Azeem, “Comparative Study of Valency-Based Topological Indices for Tetrahedral Sheets of Clay Minerals”, Current Organic Synthesis, Scienec Bentham, Journal for Current and In-depth Reviews on Organic Synthesis, 18(7), **2021**.
 6. F. A. Abolaban, A. Ahmad, **M. A. Asim** “Computation of Vertex-Edge Degree-Based Topological Descriptors for Metal Trihalides Network”, IEEE Access, 9, **2021**.
 7. M. Ibrahim, S. Khan, **M. A. Asim**, and . M. Waseem, “Total Irregularity Strength of Some Cubic Graphs”, Proyecciones (Antofagasta, On line), 40(4), **2021**.
 8. **M. A. Asim**, R. Hasni, A. Ahmad, B. Assiri, A. S. Fenovcikova, “Irregularity Strength of Circulant Graphs using Algorithmic Approach”, IEEE Access, **2021**.
 9. S. Zaman, F. A. Abolaban, A. Ahmad and **M. A. Asim**, “Maximum H-index of Bipartite Network with some Given Parameters”, AIMS Mathematics, 6(5), **2021**.
 10. R. Hasni, I. Tarawneh, M. K. Siddiqui, A. Raheem, and **M. A. Asim**, “Edge Irregular k -Labeling for Disjoint Union of Cycles and Generalized Prisms”, Malaysian Journal of Mathematical Sciences, 15(1), **2021**.
 11. I. Tarawneh, R. Hasni, A. Ahmad, **M. A. Asim**, “On the Edge Irregularity Strength for some Classes of Plane Graphs”, AIMS Mathematics, bf 6(3), **2021**.

- 2020**
12. A. Ahmad, **M. A. Asim**, B. Assiri, A. Semanicova Fenovckova, "Computing the Edge Irregularity Strength of Bipartite Graphs and Wheel Graphs", *Fundamenta Informaticae* 173, **2020**.
13. A. Ahmad, **M. A. Asim**, M. F. Nadeem, "Polynomials of Degree-Based Indices of Metal-Organic Networks", *Combinatorial Chemistry & High Throughput Screening*, **2020**.
14. A. Ahmad, R. Hasni, K. Elahi, **M. A. Asim**, "Polynomials of Degree-Based Indices for Swapped Networks Modeled by Optical Transpose Interconnection System" *IEEE Access*, 8, **2020**.
- 2019**
15. **M. A. Asim**, A. Ahmad , R. Hasni, "Edge Irregular k-Labeling for Several Classes of Trees", *Utilitas Mathematica, Canadian Journal of Combinatorics* 111, **2019**.
16. I. Tarawneh, R. Hasni, M. K. Siddiqui, **M. A. Asim**, On the Edge Irregularity Strength of Disjoint Union of Graphs, *Ars Combinatoria, Canadian Journal of Combinatorics* 142, **2019**.
- 2018**
17. A. Ahmad, M. Baca, **M.A. Asim**, R. Hasni, "Computing Edge Irregularity Strength of Complete m-ary Trees using Algorithmic Approach", *UPB Scientific Bulletin, Applied Mathematics and Physics* 80(3), **2018**.
18. I. Tarawneh, R. Hasni and **M. A. Asim**, "On the Edge Irregularity Strength of Disjoint-Union of Star Graph and Subdivision of Star Graph", *Ars Combinatoria, Canadian Journal of Combinatorics*, 141, **2018**.
19. **M. A. Asim**, A. Ali and R. Hasni, "Iterative Algorithm for Computing Irregularity Strength of Complete Graphs", *Ars Combinatoria, Canadian Journal of Combinatorics*, 138, **2018**.
- 2014**
20. M. Z. Ullah, F. Ahmad, **M. A. Asim**, "A Correction-Note on Three-Step Iterative Methods for Nonlinear Equations and Generalization of Method" *Journal of Modern Methods in Numerical Mathematics*. 5(1), **2014**

- **Quality Consultant:**

2019 till Date **Quality Trainer & Consultant:** After serving as Head of QAU at college level, in 2019 I was selected as quality consultant at university level to train the quality committees of all other programs in the university. This job covers major responsibilities like:

- Preparation of Programs for accreditation (Local / International)
 - Medical Programs (Saudi-Med & NCAAA)
 - Computing & Engineering Programs (ABET)
 - Business College Programs (AACSB)

- Science Programs (ASIIN)
 - Visiting the colleges to monitor strategic plan activities
 - Monitoring and reporting their performance indicators (KPIs)
- **Workshops & Seminars:**
 - Seminar (Presented): Outcomes based Education (OBE), arranged by DAD-JU for vice-deans of quality from all programs in the university. (2021)
 - Seminar (Presented): Evidence based Quality, arranged by DAD-JU for quality coordinators of all programs in the university. (2020)
 - One-Day Workshop (Presented): How to write CLOs according to NCAAA-NQF and mapping of CLOs vs PLOs. (2016)
 - Two-Week workshop (Attended): About ABET Guidelines, Curriculum Review and Continuous Improvement, presented by ABET consultant from USA. (2015)
 - Four-Days Workshop (Attended): About NCAAA-NQF and Self-Study arranged by DAD-JU. (2015)
 - One-Week Workshop (Attended): About ABET guidelines preparation arranged by College of CS and IS at King Faisal University. (2014)
 - Seminar (Presented): About Blooms Taxonomy Adoption in Academia arranged by QAU-CS and IT. (2014)
 - One-Day Training Workshop Presented: About How to Prepare NCAAA Course Files arranged by QAU-CS and IT. (2013)

Research Activities

- **PhD Supervision:**

I am supervising a PhD student at UMT Malaysia as co-supervisor. His research title is “Combinatorial optimization of graph labeling algorithms using algorithmic design strategies”.

- **Research Conferences Attended :**

- The 6th Gdansk Workshop on Graph Theory, 2018 Poland.
- International Conference on Graph Theory and Information Security ICGTIS-2017 Conference, Indonesia.

- **Research Seminar:**

- Seminar (Presented): Use of Empirical Methods in Interdisciplinary Research