Dr. Muhammad Shahzad Sarfraz

Professor of Computer Science
Director Campuses FAST-NUCES (CFD & Multan)

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I am deeply engaged in the fields of Computer Science and Geospatial Technologies for more than eighteen years, where I spearhead core thematic areas encompassing ICT tools for Health, Agriculture, Location-based Systems, associated GIS-based applications, and Educational data mining. My focus extends to leveraging web-based and machine learning open-source tools for Remote Sensing and GIS applications, as well as developing customized solutions to address organizational needs and readiness assessment. Furthermore, I specialize in evaluating location-based systems.

Academic & Administrative Responsibilities

1. Coordinate administrative functions including scheduling, budgeting, and resource allocation to ensure efficient campus operations.

2. Oversee compliance with institutional policies, regulations, and accreditation standards, maintaining a safe and conducive learning environment.

3. Continuous maintenance of departmental planning and establishing initiatives to reflect the university mission and vision.

4. Foster academic excellence by supporting faculty in curriculum development, assessment, and scholarly activities.

5. Promote student success through initiatives such as academic advising, student support services, extracurricular activities, and graduate placements.

Professional Experience

Director Campus
FAST - National University of Computer and Emerging Sciences
May 01, 2025 – Present
Multan, Pakistan

Professor and Director Campus
National University of Computer and Emerging Sciences
January 01, 2022 – Present
Chiniot-FSD, Pakistan

Associate Professor and Director Campus
National University of Computer and Emerging Sciences
August 01, 2020 – December 31, 2021
Chiniot-FSD Pakistan

Associate Professor & Head Department of CS
National University of Computer and Emerging Sciences
January 01, 2019 – July 31, 2020
Chiniot-FSD, Pakistan

Associate Professor & Head Graduate Programs
National University of Computer and Emerging Sciences
September 05, 2018 – December 31, 2018
Chiniot-FSD, Pakistan

Associate Professor, Chairperson CS Department &
Director Evening Programs
University of Gujrat
April 15, 2015 – September 05, 2018
Gujrat, Pakistan

Assistant Professor & Head Graduate Programs
National University of Computer and Emerging Sciences
March 01, 2014 – April 14, 2015
Chiniot-FSD, Pakistan

Assistant Professor   December 31, 2012 – February 28, 2014
COMSATS Institute of Information Technology (CIIT)   Abbottabad, Pakistan

Visiting Researcher   August 01, 2010 – March 31, 2011
National Institute of Informatics, Tokyo (NII)   Tokyo, Japan

Research Associate/PhD Fellow   January 15, 2008 – December 30, 2012
Asian Institute of Technology (AIT)   Pathum Thani, Thailand

Lecturer   August 04, 2006 – January 14, 2008
COMSATS Institute of Information Technology (CIIT)   Abbottabad, Pakistan

EDUCATION

Ph.D. in Computing (RS & GIS)   Asian Institute of Technology, Thailand, 2012
M.S. in Computing (RS & GIS)   Asian Institute of Technology, Thailand, 2009
Master's in Computer Science   University of Agriculture, Pakistan, 2006
Bachelor's in Computer Science   University of Punjab, Pakistan, 2004

PROFESSIONAL MEMBERSHIP

1. Senior Member, IEEE

2. Member, Pak One Health Alliance

3. Member, Geological Society of America

4. Member, Canadian Remote Sensing Society

5. Member, Association for Computing Machinery (ACM)

6. Member, International Association of Chinese Professionals in GIS

FUNDED PROJECTS, HONORS AND AWARDS

1. **HEC Funded Research Project** Vector-borne Infectious Diseases Surveillance and Response System using Earth Observation Data. Funding amount Rs. 4.8 Million during 2019-22.

2. **NUCES Faculty Research Support Grant (FRSG)** Awards of Worth Rs. 5.4 Million for the Year 2023-2025.

3. **HEC Travel Grant for Cyprus** to Present Research at Seventh International Conference on Remote Sensing and Geoinformation of Environment held during 18-21 March 2018.

4. **HEC Travel Grant for China** to Present Research at "Symposium on "Developments, Technologies and Applications in Remote Sensing" during May 7-10, 2018 in Beijing.

5. **Start-up Incubator** during 2016 & 2018 Business Plan Competition at University of Gujrat.

6. **HEC Travel Grant for the Czech Republic** to present Research at "XXII International Society for Photogrammetry and Remote Sensing (ISPRS) Congress 2016" during July 12-19, 2016 in Prague, .

7. **Research Productivity Award** for the Year 2014 from COMSATS University Islamabad, Pak.

8. **ISPRS Travel Grant** for Presenting Research Results at "ISPRS TC VIII Mid-Term Symposium 2014" by ISPRS Foundation during 9-12 December 2014 in Hyderabad, India.

9. **GSA-USA Travel Fund** for Presenting Research at "Geological Society of America, 2014" by GSA International Section held on 19-22 October 2014 in Vancouver, BC, Canada.

10. **Travel Grant under NASA fund** for Presenting Research Results at "2nd Symposium on Advances in Geospatial Technologies for Health" by NASA held during August 25-29, 2013 in Arlington, USA.

11. **Best Oral Presentation Award** at the 1st International Conference on Health Science Thai Traditional and Alternative Medicine held from 21-23 Nov at Maha Sarakham, Thailand.

12. **ProSPER.NET Thesis Competition runner-up** for Research Presentation held at HQ of United Nation (UN) University, Japan during August 2011.

13. **HEC Scholarship** for M.S. leading to Ph.D.

14. **1st Position in the Department** of Computer Science, Batch-2006, University of Agriculture, Faisalabad, Pakistan.

SERVEICES RENDERED

1. Evaluator, AI Video Tech-Exhibition and Interfaculty Competition at GOVERNMENT COLLEGE WOMEN UNIVERSITY FAISALABAD (GCWUF).

2. Member, Relevance Access Committee, GOVERNMENT COLLEGE WOMEN UNIVERSITY FAISALABAD (GCWUF).

3. Member, Board of Faculty (Faculty of Computing and Numeric Sciences) at GOVERNMENT COLLEGE WOMEN UNIVERSITY FAISALABAD (GCWUF).

4. Judge, Tech-Exhibition and Interfaculty Competition of AI Videos at GOVERNMENT COLLEGE WOMEN UNIVERSITY FAISALABAD (GCWUF) on 13 th August 2025

5. Head, Spatial Analytic Research (SAR) group, to conduct cutting-edge research on several real-world issues using Multispectral and Hyperspectral sensors.

6. External Examiner, Graduate Program, GC University, Faisalabad.

7. External Expert, Selection Board meeting at UET Lahore.

8. Member Recruitment, Campus Director and Faculty at the KIT, RYK - Pak.

9. Member, Finance and Planning Committee, UoG.

10. Co-opted Member, Board of Governors, FAST-NUCES Islamabad.

11. Member, Consultative Board, Khanpur Institute of Technology, RYK - Pak.

12. Member, Committee on Reforms in Nursing Education in Punjab, PHEC, Punjab.

13. Convener, Industry Advisory Board Committee, FAST School of Computing at CFD Campus.

14. Member, Selection Board Meeting at Government College University Faisalabad.

15. Member, Board of Studies Department ofInformation Technology, GOVERNMENT COLLEGE WOMEN UNIVERSITY FAISALABAD (GCWUF).

16. Subject Expert, Punjab Public Service Commission, Punjab.

17. Member, Board of Studies, University of Education LHR, KFUEIT RYK, University of Sahiwal, PAF-IAST Haripur & NTU FSD.

18. BOS meeting at GOVERNMENT COLLEGE UNIVERSITY FAISALABAD (GCUF) on May 16, 2025.

19. Member, Faculty Selection/Promotion Board, NTU, Faisalabad.

20. Head, Campus Research Committee at NUCES CFD Campus.

21. Convener, Graduate Studies Committee (GSC) at FAST-NUCES CFD Campus.

22. Subject Expert, DTRC Committee's to Review the Annual Progress of NTU TTS Faculty.

23. Member, Grievance Redressal Committee at NUCES CFD Campus.

24. Convener, Selection Committee of Administrative Staff at NUCES CFD Campus.

25. Convener, Board of Studies, Department of Computer Science, University of Gujrat (UoG).

26. Head, Hall Management Committee, FAST-NUCES CFD.

27. Convener, Departmental Research and Review Committee (DRRC), UoG.

28. External Examiner, NTU Graduate Assessment Test (NTU GAT-Subject) for Admission to Ph.D.

29. Member, Business Incubation Centre Advisory/Mentor Committee, UoG.

30. External Examiner, NTU & Riphah University FSD; KFUEIT RYK, COMSATS University Islamabad - Sahiwal Campus, Lahore College for Women University/PUCIT/UET Lahore.

31. Focal Person, NCEAC Accreditation Programs for Faculty of Computing & IT, UoG & NUCES.

32. Member, Departmental Research and Review Committee (DRRC), Department of IT, UoG.

33. Member, of Drafting and Proposing ORIC Policy of UoG.

34. Convener, Campus Management Committee (CMC), FAST-NUCES CFD.

35. Convener, Online Admission Data Cell for the Year 2015, UoG.

36. Member, PEEF Scholarship Committee for Master level Programs for the Year 2016-17, UoG.

37. Member, National Curriculum Revision Committee (NCRC) of Higher Education Commission on Remote Sensing & Geographical Information Systems

38. Member, National Grassroots ICT Research Initiative (NGIRI, 2015-16) for National level Competition Organized by Ministry of Information Technology, Pakistan.

39. Member, Committee of Academia-Industry Linkages, UoG.

40. Judge, Induction of Startups on Launchpad for PITB Incubation Wing.

41. Judge and Evaluator, Prime Minister's Youth Skills Development Program.

42. Member, PhD Fellowship Selection Committee, FAST-NUCES Islamabad.

43. Member, Trainers Selection Committee for Sports, UoG.

44. Head, Admission Committee at FAST-NUCES CFD Campus.

45. Block In-charge, UET Entry Test 2016 at UoG.

46. Judge and Evaluator, HULT Prize Business Idea Competition.

47. Member, Board of Faculty, GOVERNMENT COLLEGE UNIVERSITY FAISALABAD (GCUF).

48. Member, Selection Committee for Administrative Posts in BPS-17 and above at UoG.

49. Member, Departmental Tenure Review Committee (DTRC) of TTS, GOVERNMENT COLLEGE UNIVERSITY FAISALABAD (GCUF)

50. Paper Setter/Moderator, Annual System of Examination for 2016-2019, UoG.

51. Co-opted Member, Reviewing/Negotiating Corporate Health Insurance Plan for UoG Employees.

52. Member, Business Plan Competition Committee UoG.

53. Subject Expert/Convener, Selection Committee for Appointment of Faculty on Contract-basis at UoG Hafiz Hayat, Lahore and Sialkot Campuses.

54. Member, Scholarship Award Committee, UoG.

55. Convener, NCEAC Accreditation Committee at UoG & FAST-NUCES CFD Campus.

56. Member, Academic, and Financial Audit UoG, Lahore Campus.

57. Member, Academic Council of UoG and NUCES

58. Member, Faculty/Administrative Staff Academic Audit Committee, Sub-campus LHR (PPP).

59. Member, Appellate Committee to Review Cases of Students Appeals.

60. Convenor, PhD Program Teams (PT) for Self-assessment Report, UoG.

61. Convener, Exam Supervisory Committee (ESC), FAST NUCES CFD Campus.

62. Critic/Inspector, End Term Examination Spring-2017, UoG.

63. Member, Internal Scholarship Award Committee (ISAC) for HEC Need-based Scholarship and Tuition-fee Concession for the Year 2017-2018.

64. Member, IT Equipment Committee for Strengthening/overseeing and Smooth Proceedings of the Procurement Process of the Equipment, UoG.

65. Convener, Curriculum/Exam Committee, UoG.

66. Member, Preparing TORs of MOUs for Academic Collaboration b/w UESTC, China and UoG.

67. Member, Implementation of Roles to Accelerate the Academia-Industry Linkages, UoG.

Workshops/Conferences Organized & Participated

1. Guest of Honour, Independence Day Celebration at Faisalabad Women Chamber of Commerce & Industry (FWCCI) Faisalabad on 23rd August 2025.

2. Attended IEEE International Geoscience and Remote Sensing Symposium in Brisbane 2025, Australia from 3-8 August 2025.

3. Guest of Honour, Waris Shah Conference organized by the University of Agriculture Faisalabad on 21st October 2025.

4. Attended the Consultation Session on HEC Revised Curriculum for Computer Science (2025) at University of Agriculture Faisalabad on 13th November 2025.

5. Attended the World Uni Ranking Ceremony at GOVERNMENT COLLEGE UNIVERSITY FAISALABAD (GCUF) on 13th November 2025.

6. Attended 4th International Conference on Mathematical Empowerment & Future Trends at GOVERNMENT COLLEGE WOMAN UNIVERSITY FAISALABAD (GCWUF), from 20 to 22nd November 2025.

7. Attended the Akhuwat's PATH ceremony at Akhuwat College, Kasur on 30th November, 2025.

8. Guest of Honour, International Conference on "Natural Products: Biological and Pharmaceutical Applications (NPBPA-2025)" at GOVERNMENT COLLEGE WOMAN UNIVERSITY FAISALABAD (GCWUF) on 2nd December 2025.

9. Attended the 12th Convocation of GOVERNMENT COLLEGE UNIVERSITY FAISALABAD (GCUF) on 4th December 2025.

10. Session Chair, the 6th International Conference on Advancements in Computational Sciences (ICACS'25) held at University of Lahore on 18th February, 2025.

11. Guest of Honour, 4th International Conference on Knowledge Based Textiles -2025, Hosted by National Textile University, Faisalabad.

12. Organizer, TEDx held on November 13, 2024 at FAST NUCES CFD Campus.

13. General Chair & Host, International Conference on IT and Industrial Technologies (ICIT) held during December 10 -12, 2024 Chiniot, Pakistan.

14. Program Committee Co-Chair, 2024 IEEE Belt and Road Congress on AI for Sustainable Development held during 22-23 June, 2024 at Hangzhou, China.

15. Session Chair, 5th International Conference on Advancements in Computational Sciences (ICACS) held during 19-20 February, 2024 at University of Lahore, Pakistan.

16. Guest of Honour, 3rd IEEE Summit on Artificial Intelligence in Information and Communication held of November 2, 2023 at University of Faisalabad.

17. General Chair & Host, International Conference on IT and Industrial Technologies (ICIT) held during October 09-10, 2023 Chiniot, Pakistan.

18. Guest of Honour, 4th International Conference on Computing, Mathematics and Engineering Technologies (iCoMET) held during 17-18 March, 2023 at Sukkur IBA University, Pakistan.

19. Organizer, Workshop on Opportunity of Research and Academic Collaboration between Pakistan and Scandinavian Universities held on March 14, 2023 at Higher Education Commission, Pakistan.

20. Session Chair, 4th International Conference on Advancements in Computational Sciences (ICACS) held during 20-22 February, 2023 at University of Lahore, Pakistan.

21. Member, Technical/Scientific Committee for International E-Conference on Bio polymer, Smart and Engineering Materials 2022- ICBSEM2022 held during November 25-26, 2022 at Ethiopia.

22. Member, Steering Committee on 17th ICET Conference held during 29-30 November 2022 at GIKI, Pakistan.

23. Organized, Hands-on One Day Training Workshop on Outcome Based Education held on Thursday August 04, 2022.

24. Organized, Workshop on Emotional and Social Quotient for Effective Pedagogical Skills held on Thursday August 04, 2022.

25. General Chair & Host, International Conference on IT and Industrial Technologies (ICIT) held during October 03-04, 2022 Chiniot, Pakistan.

26. Organizer, Awareness Session on Challenges to National Security and Our Role as Citizens on 31 December 2021.

27. Venue Partner & Organizer, Pakistan IT Professionals Conference (PIPC) held during 8-9 December, 2021 at FAST-NUCES CFD Campus.

28. Organized, Seminar on Coordination and Team Management: From a Team Lead Perspective held on Monday, November 15, 2021.

29. Session Chair, Technical Session: Big Data Analytics in Health, Machine Learning and Artificial Intelligence during 7th International Conference on Health GIS: Geo Intelligence for Smart Healthcare on February 25-26, 2021.

30. Organized, Workshop on Enabling Excellence at Higher Education Institutions (HEIs) held on Wednesday January 27, 2021 at FAST-NUCES CFD Campus.

31. Organizer, Training on Quality Hygiene & Hospitality held during 8-9 January 2021 at FAST NUCES-CFD.

32. Organized, Pedagogical and Assessment Techniques for Hybrid Education by Dr. Shaihd Qamar Research Scientist at the University of Louisville, Kentucky USA held on Thursday August 27, 2020.

33. Organizer, TechStars Startup Weekend Faisalabad In partnership with Google for Startups on 29 November 2019.

34. Organizer, TEDx held on 6th April, 2016 at Library Auditorium UoG.

35. Organizer, Summit of Emerging Technologies on April 14, 2016 at Library Auditorium UoG.

36. Organizer, TECHIE Empowerment Summit held on April 29, 2016 at UoG.

37. Organizer, E-Gamming and Programming Competition held on April 21 and 25, 2016 at UoG.

38. Organizer, 4th International Workshop on Frontiers of Information Technology during December 20-21, 2006 Islamabad Pakistan, Organized by COMSATS Institute of Technology and sponsored by Higher Education Commission (HEC) Pakistan.

Workshops/Events and Conferences Participated

1. Attendad 2025 IEEE International Geoscience and Remote Sensing Symposium in Brisbance, Australia. 3-8 August 2025

2. Guest of Honour, Independence Day to honor the bravery and sacrifices of Pakistan Armed Forces in the light of their recent and heroic defense of our nation during the recent conflict with India at Faisalabad Women Chamber of Commerce & Industry (FWCCI) Faisalabad on 23 rd August 2025

3. Attended the CDAO Canada Conference under the theme "Leveraging Generative Al to Transform Data", on 26–27 March 2025.

4. Attend a session on Artificial Intelligence (AI)-Based Transformations for Education and Industry at Universiti Teknikal Malaysia Melaka (UTeM) on 25th February, 2025.

5. Attend the send-off ceremony at FAST Islamabad, where outstanding FASTians have embarked on their journey to IMT Atlantique, France, on 30-January, 2025

6. Hosted a delegate from Sheridan College, Canada, during their leadership visit on January 23, 2025, to explore opportunities for students.

7. Workshop on AI for K-12 Classrooms held on 21 September 2024 at LUMS, Pakistan

8. Workshop on Designing Effective Online Learning Experiences held on 21 September 2024 at LUMS, Pakistan

9. International Conference on Accreditation and Internationalization in South Asian HEIs held on 03 June 2024 at HEC Islamabad, Pakistan

10. Workshop on SSAPI (Strategies Support for accreditation of program and Internationalization of South Asian Higher Education Intitutes Training) held on 25-29 May 2024 at FAST NUCES Islamabad, Pakistan

11. International Conference on Emerging Trends in Artificial Intelligence and Cyber Security held on 15-17 May 2024 at KFUEIT Rahim Yar Khan, Pakistan

12. Workshop on Higher Education Development and University-Industry Cooperation jointly organized by Jiangxi University, Fudan University, and Peking University from April 16th, 2024 to April 25th, 2024 in Nanchang, Shanghai, Beijing of China.

13. Glimpse to a Modern Pakistan/French-Pakistani Cooperation in Higher Education on November 1, 2022, at LUMS organized by the Embassy of France in collaboration with Campus France

14. Artificial Intelligence Connect Conference organized by Motive's on July 2022 at PC Lahore

15. International Conference on Substance Abuse, Prevention and Treatment on 11 June 2022, Organized by the Department of Psychology, National University of Medical Sciences (NUMS)

16. Advance Optical Fiber Systems and Li-Fi Demonstration held on August 26, 2021, organized by EPTech and FAST-NUCES CFD Campus

17. Tech Education and Covid-19 organized by Open Islamabad Annual Forum on 23 August 2020 at PNCA, Islamabad

18. Workshop on Importance of Institutional Performance Evaluation (IPE) at Higher Education Institutions (HEIs) at FAST NUCES CFD delivered by Dr. Riaz Ahmed Director Quality Assurance and Amp International Collaboration NUST held on Friday June 21, 2019.

19. Workshop on Design & Development of Curriculum and its Assessment Techniques organized by FAST NUCES CFD on March 14, 2019

20. ISPRS Student Consortium Summer School on Big Geosensing Data Ecosystem: Theory, Processing & Application held during 20-24 October 2018 at UTM Kuala Lumpur, Malaysia

21. The 39th Asian Conference on Remote Sensing (ACRS 2018) Jointly Organized by the Malaysian Remote Sensing Agency and Asian Association on Remote Sensing held during 15-19 October 2018 in Kuala Lumpur, Malaysia

22. Data Science Boot Camp Organized by HEC and NUCES during January 9-13, 2017

23. 5-Day HEC Indigenous On-Campus Training Organized by ORIC Office at UoG, Pakistan in June, 2015

24. Workshop on Encouraging Problem-Solving Research Policy for Enabling Environment on 17-June-2014 organized by Pakistan Science Foundation, PCST, PHMA & IRP, Pakistan

25. Workshop on Intuitive Image analysis with ENV15.0, organized by Geoinformatics Center AIT Bangkok on May 2-3, 2012 Organized by Exelis Osaka, Japan

26. Strategies for Urban Flooding Management Jointly organized by AIT, Polytech, University of Sophia Antipolis/Polytech Nice Sophia and the National University of Singapore/DLR German Space Agency, Germany during 28-29 June 2012

27. Expert Group Meeting on Geo-Reference Disaster Risk Management Information System in Asia-Pacific Region, during 15-17 February 2012. Organized by UN-ESCAP (Economic and Social Commission for Asia and the Pacific)

28. Winter School in Water Quality and Testing jointly organized by Mutah University, BEN Hayyan, and DAAD held from 2-9 April 2011 at Jordan

29. 2011 ProSPER.Net Young Researchers' School on Learning from Japan's Experience on Urban Sustainability, Organized by Hosei University, Japan, 1-12 August 2011

30. The Royal Thai Air Force Academy English Camp Project during 19-21 April 2010 at Samut Songkram, organized by AIT Career Center, Thailand

31. Professional Development Needs Assessment and APMAS Startup Workshop during 6-11 July 2010 organized by AIT Extension (Professional Education for Capacity Building) and sponsored by IFAD (International Fund for Agricultural Development)

32. International Conference on Sustainable Development in the Context of Climate Change, Asian Institute of Technology during 24-25 September 2009 sponsored by UNESCAP (United Nations Economic and Social Commission for Asia and the Pacific)

33. 2nd International Conference on Geoinformation Technologies for Natural Disaster Management, & Rehabilitation held during 30-31 January 2009 at Thailand

34. International Training Course under ProGENY Project on Global Navigation Satellite System (GALILEO) Education Tools during November 21-22 2008 organized by ISMB and Politecnico di Torino, Italy

35. Symposium on Pedagogy, organized by FAST-NUCES, Pakistan

36. 2nd Annual Business & Technology Conference (BIZTECH'15), FAST-NUCES, Pakistan

List of selected Presentations

1. Panelist, IEEE Faisalabad Students, Young Professionals, Women in Engineering Congress (Theme: "Fuelling Passion of Future Innovators"), Sitara Marquee, Faisalabad on October 4, 2025

2. Invited Talk on "Seeing the Unseen: Remote Sensing & amp; GIS for Smart Decision-Making", University of Alberta in Edmonton, Canada on 4th April, 2025.

3. Invited talk at UTeM Malaysia on Machine Learning and Remote Sensing Integration for Addressing Society Challenges on October 28, 2024

4. Invited talk at Faculty of Information Technology on Remote Sensing & Geospatial Technologies for Sustainable Development at Monash University Australia on October 16, 2024

5. Invited talk at GAITC 2024: Big Data Platforms Supporting Sustainable Development on June 22, 2024, Hangzhou, China

6. Invited Talk, on Belt and Road Forum on Digital Earth (BRFonDE 2023), December 6-8, 2023 Beijing,ing China

7. Keynote Speech, on 5th ICCSAT-2023 at Lahore Garrison University on November 22-23, 2023

8. Panelist, E-commerce Pro - Agencies & Freelancers Summit at Lahore Chamber of Commerce & Industry on 16-July, 2022

9. Panelist, 14th IEEE Pakistan Student/YP/WIE/SIGHT Congress during 26-27 February 2022 at Faisalabad

10. Panelist for Leaders Talks on Bridging Academia/Industry for Cyber Maturity at BSidIslamabad,bad 7-8 November 2020

11. Invited Discussion, on Eco-System of Faisalabad - Challenges & Opportunities with Startup Grind Faisalabad organized by CIRCLE on 8th October 2020

12. Invited Talk, Tech Education and COVID-19 organized by Startup Grind Faisalabad on 22nd August 2020

13. Presentation, at Seventh International Conference on Remote Sensing and Geo-information of Environment(RSCy2019), organized by Cyprus Remote Sensing Society held on March 18-21, 2019

14. Presentation, he Technical Commission III Symposium (Beijing, China) on May 07-10, 2018 Beijing China

15. Invited Speaker, during AgMIP-Pakistan for Climate Change Adaptation Strategies on Ensure Food Security during 16-17 January 2014 at UAF, Pakistan

16. Guest Speaker, for Seminar on Emerging Technologies and Trends in Computer Science held on January 18, 2014 at UAF, Pakistan

17. Trainer, for 3 Days Workshop on Innovative Statistical Tools for Data Analysis "SPSS, GIS & SARA (WHO)", organized by WHO and Institute of Public Health Pakistan during January 21-23, 2014

18. Invited Talk, Consultative Meeting for eHealth Strategic Planning on "Vision and Key Components for eHealth" organized by WHO, Govt. of Pakistan and COMSATS during 1-2 May, 2014

19. Trainer, Use of Innovative Statistical Tools for Data Analysis (SPSS, GIS & SARA) at Institute of Public Health, Lahore Organized by WHO from January 21-23, 2014

20. Keynote Speech, at ICBIM 2013, International Society of Universal Research in Science, Pakistan held during 27-28 April 2013 at Abbottabad, Pakistan

21. Delivered Talk, on Geo-Spatial Technologies for Spatial Epidemiology, on 9th ISPRS Summer School held during 25-30 October, 2013 Bali Indonesia

22. Invited Talk, on Geo-Information technologies for Social Issues at 11th International Conference on Frontiers of Information Technology (FIT) held at Islamabad, Pakistan from 16-18 Dec 2013 supported by IEEE CS Society.

23. Oral Presentation, on Remote Sensing & GIS tools for Public Health at 4th International eHealth Conference held at Karachi, Pakistan during 22-23 Nov 2013

24. Invited Talk, Geo-spatial Technologies for Monitoring Climate and Environment at 34th ACRS Summer School held at Bali, Indonesia during 25-31 Oct 2013

25. Oral Presentation, on Identification of Urban and Peri-urban Favorable Breeding Habitat for Aedes mosquitoes at 2nd Symposium on Advances in Geospatial Technologies for Health at Arlington, VA, USA during 25-30 August 2013

26. Oral Presentation, on Crop Identification, Forecasting, and Stress Detection using Hyper Spectral Remote Sensing Sydney Convention and Exhibition Center 10-15 April 2011, Australia

27. Trainer, Advance Satellite Image Processing for LULCM Project for Bhutan from 26-March to 13 April, 2012 at Asian Institute of Technology (AIT), Thailand

28. Trainer, GIS and Remote Sensing in Irrigation Planning, from 6-June to 1-July, 2011, Organized by AIT and supported by "Ministry of Energy and Water (MEW), Afghanistan

29. Oral Presentation, on Role of Remote Sensing to Extract Water Quality Parameters and its Management organized by EXCEED (Technische Universitat Braunschweig Germany) and Mutah University Jordan, Sponsored by DAAD on 6th April 2011 Aqaba, Jordan

30. Oral Presentation, at 3rd International Conference on Geoinformation Technology for Natural Disaster Management & Rehabilitation during 19-20 October, 2010 at Chiang Mai, Thailand

31. Poster Presentation, on Geospatial Characterization of Dengue Risk in Urban Environment during 26-28 July 2010 at Map Asia & ISG 2010 Malaysia

32. Presentation, on "Vector-borne Diseases and Role of Remote Sensing & GIS, Current & Future Research Perspective" for Outreach International Participant from Department of Remote Sensing, Faculty of Go information Science & Engineering, University Technology of Malaysia on 16th December-2009

Selected Publications

1. Azam A, **M. S. Sarfraz**, Zaman QU, Cheema AA, Ali A., "Talpur BA. From Reviews to Preference Profiles: LLM-Based Transfer for Cross-Domain Recommendation". Egyptian Informatics Journal. 2025 Dec 14.

2. Awais Azam, **M. S. Sarfraz**, Qamar Uz Zaman, Adeel Ashraf Cheema, Aitzaz Ali. "A Unified Thematic Mapping Approach for Cross-Domain Personalization and Cold Start Alleviation". IEEE Access, 2025.

3. A. A. Cheema, **M. S. Sarfraz**, U. Habib, Q. U. Zaman and E. Boonchieng, "CD-LLMCARS: Cross Domain fine-tuned Large Language Model for Context-Aware Recommender Systems," in IEEE Open Journal of the Computer Society December, 2024.

4. Usman, Muhammad and **M. S. Sarfraz** and Habib, Usman and Aftab, Muhammad Umar and Javed, Saleha, "Automatic Hybrid Access Control in SCADA-Enabled IIoT Networks Using Machine Learning," in MDPI, 2023.

5. Asad Khan, Muhammad Awais Ashraf, Muhammad Awais Javeed, **M. S. Sarfraz**, Asad Ullah, and Muhammad Mehran Arshad Khan, "Electronic Guidance Cane for Users Having Partial Vision Loss Disability,", in Hindawi, Wireless Communications and Mobile Computing, 2021.

6. Zojan Memon, Hamideh Aghian, **M. S. Sarfraz**, Akhtar Hussain Jalbani, Rozita Jamili Oskouei, Khuda Bux Jalbani, Ghulam Hussain Jalbani, "Framework for Educational Domain-Based Multichatbot Communication System", Hindawi, Scientific Programming, 2021.

7. Noor Asim, **M. S. Sarfraz**, Muhammad Ahmad, Numan Shafi, Muhammad Husnain, "Weed identification using vegetation indices and multispectral UAV imaging," in the 42nd Asian Conference on Remote Sensing (ACRS), 2021.

8. Ali Hamza, Danish Shehzad, **M. S. Sarfraz**, Usman Habib, Numan Shafi, "Novel Secure Hybrid Image Steganography Technique Based on Pattern Matching," in KSII Transactions on Internet and Information Systems (TIIS), 2021.

9. Cheema, Adeel Ashraf and **M. S. Sarfraz** and Usman, Muhammad and Zaman, Qamar Uz and Habib, Usman and Boonchieng, Ekkarat "KT-CDULF: Knowledge Transfer in Context-Aware Cross-Domain Recommender Systems via Latent User Profiling" in IEEE Access, July 2024.

10. M. Usman, **M. S. Sarfraz**, M. U. Aftab, U. Habib and S. Javed, "A Blockchain Based Scalable Domain Access Control Framework for Industrial Internet of Things," in IEEE Access, 2024.

11. Usman Ghous, **M. S. Sarfraz**, Muhammad Ahmad, Chenyu Li, Danfeng Hong, "(2+1) D Extreme Xception Net for Hyperspectral Image Classification", IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, January 2024.

12. Rabia Maqsood, Paolo Ceravolo, Muhammad Ahmad, & **M. S. Sarfraz**, "Examining students' course trajectories using data mining and visualization approaches", International Journal of Educational Technology in Higher Education, Springer Netherlands, October 2023.

13. Ariyo Oluwasanmi, Muhammad Umar Aftab, Zhiguang Qin, **M. S. Sarfraz**, Yang Yu, and Hafiz Tayyab Rauf, "Multi-Head Spatiotemporal Attention Graph Convolutional Network for Traffic Prediction", Multidisciplinary, MDPI & Switzerland, April 2023.

14. Momna Javaid, **M. S. Sarfraz**, Muhammad Umar Aftab, Qamar uz Zaman, Hafiz Tayyab Rauf, and Khalid A. Alnowibet, "WebGIS-Based Real-Time Surveillance and Response System for Vector-Borne Infectious Diseases", International Journal of Environmental Research and Public Health, 2023.

15. Mahnoor Khalid, **M. S. Sarfraz**, Uzair Iqbal, Muhammad Umar Aftab, Gniewko Niedbala, and Hafiz Tayyab Rauf, "Real-Time Plant Health Detection Using Deep Convolutional Neural Networks", Agriculture, 2023.

16. Samia Aziz, **M. S. Sarfraz**, Muhammad Usman, Muhammad Umar Aftab, and Hafiz Tayyab Rauf, "Geo-Spatial Mapping of Hate Speech Prediction in Roman Urdu", Mathematics, Computer Science, 2023.

17. M.H. Musaddiq, **M. S. Sarfraz**, N. Shafi, R. Maqsood, A. Azam, M. Ahmad, "Predicting the Impact of Academic Key Factors and Spatial Behaviors on Students' Performance", Applied Sciences, 2022.

18. Aftab, M. U., Hamza, A., Oluwasanmi, A., Nie X., **M. S. Sarfraz**, D., Qin, Z.,& Rafiq, A. Traditional and Hybrid Access Control Models: A Detailed Survey. Security and Communication Networks, 2022.

19. Ahmad, M., Khan, A. M., Mazzara, M., Distefano, S., Ali, M., & **M. S. Sarfraz**. A Fast and Compact 3-D CNN for Hyperspectral Image Classification. IEEE Geoscience and Remote Sensing Letters. 2022

20. Khan, Muhammad Altaf and Nasralla, Moustafa M. and Umar, Muhammad Muneer and Iqbal, Zeeshan and Rehman, Ghani Ur and **M. S. Sarfraz**, and Choudhury, Nikumani. A Survey on the Noncooperative Environment in Smart Nodes-Based Ad Hoc Networks: Motivations and Solutions, Security and Communication Networks, 2021

21. Jalbani, K. B., Yousaf, M., **M. S. Sarfraz**, Jamili Oskouei, R., Hussain, A., & Memon, Z. Poor Coding Leads to DoS Attack and Security Issues in Web Applications for Sensors. Security and Communication Networks, 2021.

22. Memon, Z., Aghian, H., **M. S. Sarfraz**, Hussain Jalbani, A., Oskouei, R. J., Jalbani, K. B., & Hussain Jalbani, G. (2021). Framework for Educational Domain-Based Multichatbot Communication System. Scientific Programming, 2021.

23. Tariq, H., Hanif, M. K., Sarwar, M. U., Bari, S., **M. S. Sarfraz**, & Oskouei, R. J. Employing Deep Learning and Time Series Analysis to Tackle the Accuracy and Robustness of the Forecasting Problem. Security and Communication Networks, 2021.

24. Ali H, Zaid Rafique M, **M. S. Sarfraz**, Malik MSA, Alqahtani MA, Alqurni JS. 2021. A novel approach for solving the traveling thief problem using enhanced simulated annealing. PeerJ Computer Science, 2021

25. Xiao, H., Ali, S., Zhang, Z., **M. S. Sarfraz**, Zhang, F., & Faisal, M. Big Data, Extracting Insights, Comprehension, and Analytics in Cardiology: An Overview. Journal of Healthcare Engineering. Hindawi, 2021

26. Khan, M. A., **M. S. Sarfraz**, Alhaisoni, M., Albesher, A. A., Wang, S., & Ashraf, I. StomachNet: Optimal Deep Learning Features Fusion for Stomach Abnormalities Classification. IEEE Access, 2020.

27. Umair, A., **M. S. Sarfraz**, Ahmad, M., Habib, U., Ullah, M. H., & Mazzara, M. Spatiotemporal Analysis of Web News Archives for Crime Prediction. Applied Sciences, 2020.

28. Khan, M. A; Seifedine, K.; Majed A.; Yunyoung N.; Yudong Z.; Venkatesan R.; and **M. S. Sarfraz**. "Computer-Aided Gastrointestinal Diseases Analysis From Wireless Capsule Endoscopy: A Framework of Best Features Selection. IEEE Access, 2020,

29. Ahmad, M.; Mazzara, M.; Raza, R.A.; Distefano, S.; Asif, M.; **M. S. Sarfraz**, Khan, A.M.; Sohaib, A. Multiclass Non-Randomized Spectral–Spatial Active Learning for Hyperspectral Image Classification. Appl. Sci. 2020.

30. Tariq M. Imran., Shahzadi T., Ali M. Natash, **M. S. Sarfraz**, Hussain Akhtar, Imran M. Pricop Emil, Candia O, Paraschiv N. "Combination of AHP and TOPSIS methods for the ranking of information security controls overcome its obstruction under fuzzy environment." Journal of Intelligent and Fuzzy Systems, 2020.

31. Ashraf, M. Waseem., Manzoor Saher. **M. S. Sarfraz**, Waseem M. Faisal., Ali Basic., Akhlaq M., Rujita C., Pupa Alex., "Fabrication and fuzzy analysis of AAO membrane with manipulated pore diameter for applications in biotechnology". Journal of Intelligent and Fuzzy Systems, 2020

32. Tariq M. Imran., Shahzadi T., Ali M. Natash., **M. S. Sarfraz**, Hussain Akhtar, Imran M. Pricop Emil, Candia O, Paraschiv N. "Intelligent data analysis and applications & smart vehicular technology, communications and applications" Journal of Intelligent and Fuzzy Systems, 2020.

33. Khan, A., Shoaib, U., & **M. S. Sarfraz**. A Comprehensive Study of Modern and High-Speed TCP-Variant in Linux Kernel: TCP CUBIC. The International Arab Journal of Information Technology, 2019

34. Akram, A., **M. S. Sarfraz** & Shoaib U. . HLA Run Time Infrastructure: A Comparative Study. Mehran University Research Journal of Engineering & Technology, 2019

35. Aurangzeb K., Haider I., Khan M.A., Saba T., **M. S. Sarfraz**, Human Behavior Analysis based on Multi-types Features Fusion and Von Nauman Entropy based Features Reduction. Journal of Medical Imaging and Health Informatics, 2019

36. Hassan, J., **M. S. Sarfraz**. Impact of suicide bombings in Pakistan using spatial and temporal analysis. In Seventh International Conference on Remote Sensing and Geoinformation of the Environment International Society for Optics and Photonics, 2019

37. Shakoor A., Ahmed A., **M. S. Sarfraz**. Security Technique in Mobile Clouds to Ensure Malware Prevention. Indian Journal of Science and Technology. Indian Journal of Science and Technology, 2018.

38. Naz, N. A., Shoaib, U., & **M. S. Sarfraz**. A Review on Customer Churn Prediction Data Mining Modeling Techniques. Indian Journal of Science and Technology, 2018.

39. Rana, M. F., Shoaib, U., **M. S. Sarfraz**. Ergonomics Estimation and Dimensions of ATM Usage in Pakistan. Indian Journal of Science and Technology. Indian Journal of Science and Technology, 2018.

40. Baig, S., & **M. S. Sarfraz**. Spatio-temporal Analysis to Predict Environmental Influence on Malaria. Proceedings of ISPRS TC III Mid-term Symposium "Developments, Technologies and Applications in Remote Sensing held in Beijing, 2018

41. Rana, I. A., Aslam, S., **M. S. Sarfraz**, & Shoaib, U. Analysis of Query Optimization Components in Distributed Database. Indian Journal of Science and Technology, 2018.

42. Mahmood, A., Shoaib, U., & **M. S. Sarfraz**. A Recommendation System for Cloud Services Selection based on Intelligent Agents. Indian Journal of Science and Technology, 2018.

43. Nazar, H., **M. S. Sarfraz**, & Shoaib, U. Web Accessibility Evaluation of Banking Website in Pakistan. International Journal of Computer Science and Information Security, 2017.

44. Noureen, A., Shoaib, U., & **M. S. Sarfraz**. Secure Device Pairing Methods: An Overview. INTERNATIONAL Journal of Advanced Computer Science and Applications, 2017.

45. Riaz, A., Shoaib, U., & **M. S. Sarfraz**. Workplace Design and Employee's Performance and Health in Software Industry of Pakistan. International Journal of Advanced Computer Science and Applications, 2017.

46. Azeem, M. W., **M. S. Sarfraz**, & Shoaib, U. Comparison of Different Techniques for Detecting Malware in Smartphones. International Journal of Computer Science and Information Security, 2017.

47. Rasheed, A., Shoaib, U., & **M. S. Sarfraz**. Performance evaluation of Keystone in cloud (OpenStack) for applications in Disaster Management & Recovery. International Journal of Computer Science and Information Security, 2016.

48. Rahman, A., **M. S. Sarfraz**, Shoaib, U., Abbas, G., & Sattar, M. A. . Cloud based E-Learning, Security Threats and Security Measures. Indian Journal of Science and Technology, 2016.

49. Tabassum, H., Shoaib, U., & **M. S. Sarfraz**. Tools and Techniques for Predicting User Browsing Behavior by using Web Usage Mining. International Journal of Computer Science and Information Security, 2016.

50. Rashid, A., Shoaib, U., & **M. S. Sarfraz**. Knowledge Discovery in Database using Intention Mining. Science International-Lahore, 2016.

51. Mir, S. S., Shoaib, U., & **M. S. Sarfraz**. Analysis of Digital Forensic Investigation Models. International Journal of Computer Science and Information Security, 2016.

52. Razzaq, S., Shoaib, U., & **M. S. Sarfraz**. Evaluation of Image Services in Open Source Clouds for Disaster Management. International Journal of Computer Science and Information Security, 2016.

53. Arshad, M., Nawaz, R., Shahnawaz, M., **M. S. Sarfraz**, Ahmad S., & S. L. Ranamukhaarachchiet. First and second generation bioethanol production in sweet sorghum, mungbean and soybean in sole and intercropping systems. Trop. Agric, 2015.

54. Arshad, M., Nawaz, R., Shahnawaz, M., **M. S. Sarfraz**, Ahmad, S., & Ranamukhaarachi, S. L. Effect of Legume type, Nitrogen Dose and Air Quality on Biomass and Bioethanol Production in Sweet Sorghum-Legume Intercropping. Poljoprivreda i Sumarstvo, 2014.

55. **M. S. Sarfraz**, Tripathi, N. K., Faruque, F. S., Bajwa, U. I., Kitamoto, A., & Souris, M. Mapping urban and peri-urban breeding habitats of Aedes mosquitoes using a fuzzy analytical hierarchical process based on climatic and physical parameters. Geospatial health, 2014.

56. Nawaz, R., Arshad, M., **M. S. Sarfraz**, Ashraf, M.W., et. all. Interactions between Acidic ($Al3+$, $Fe2+$) and Basic ($Ca2+$, $Mg2+$) Cations in Oxisol and Ultisol under Acidification Induced by Simulated Acid Rain. Asian Journal of Chemistry, 2014.

57. **M. S. Sarfraz**, Tripathi, N. K., & Kitamoto, A. . Near real-time characterisation of urban environments: a holistic approach for monitoring dengue fever risk areas. International Journal of Digital Earth, 2014.

58. **M. S. Sarfraz**, Tripathi, N. K., Kitamoto, A., and Souris, M. Identification of Urban and Peri-urban Favorable Breeding Habitat for Aedes Mosquitoes. At 2nd symposium on advances in geospatial technologies for health at Arlington, 2013.

59. Asif, M., **M. S. Sarfraz**, Ahmed, M. S., & Tripathi, N. K. . A Two Factor Based Anti-Phishing Method in Open ID. Journal of Basic and Applied Scientific Research, 2013.

60. Arshad, M., Cheema, T. A., Ahmad, S., Nawaz, R., **M. S. Sarfraz**, Shrestha, R. P., & Ranamukhaarachchi, S. L. Yield Comparison of Nonstructural Carbohydrates in Sweet Sorghum and Legume-Based Cropping Systems. Communications in Soil Science and Plant Analysis, 2013.

61. **M. S. Sarfraz**, Tripathi, N. K., Tipdecho, T., Thongbu, T., Kerdthong, P., & Souris, M. (2012). Analyzing the spatio-temporal relationship between dengue vector larval density and land-use using factor analysis and spatial ring mapping. BMC public health, 2012.

62. Shahzada, H., Tripathi, N.K., and **M. S. Sarfraz**, Geo-spatial site suitability for medicinal plants in Chiang Mai, Thailand. At the 1st International Conference on Health Science, Thai Traditional and Alternative Medicine, Mahasarakham University, 2012.

63. **M. S. Sarfraz**, Arshad, M., and Tripathi, N. K. Evaluation Of Ground Hyperspectral Remote Sensing For Precise Satellite Imagery Based Land Cover Classification And Forecasting Of Rice Grain Production. Proceedings of 34th International Symposium on Remote Sensing of Environment, 2011.

ACADEMIC CONTRIBUTION

1. Advanced GIS
2. Geo-Informatics
3. Open Source GIS
4. Database Systems
5. Operating Systems
6. Spatial Analytics
7. Advanced Topics in CS
8. Remote Sensing and GIS
9. Introduction to Computing
10. Spatial Digital Twins
11. Research Methodology
12. Professional Issues in IT
13. Advanced Operating Systems
14. Research Planning & Techniques
15. Spatial Decision Support Systems
16. Tools and Techniques For Data Science
17. Advancement in Geo-Information Technology
18. Research Trends in Spatial Data Visualization

EDITOR/REVIEWER OF JOURNALS

1. Atoms
2. Water
3. Forests
4. Sensors
5. Animals
6. Frontiers
7. Agronomy
8. Aerospace

9. Complexity
10. Agriculture
11. Remote Sensing
12. Sustainability
13. Applied Sciences
14. Scientific Reports
15. Earth Science Informatics
16. International Journal of Geoinformatics
17. Environmental Monitoring and Assessment
18. International Journal of Health Geographics
19. ISPRS International Journal of Geo-Information
20. International
21. International Journal of Applied Earth Observation and Geoinformation

Journal of Environmental Research and Public Health

Theses Supervision

1. **Mr. Ahmed Ali Tabassum** 2024 – Present
   Remote Sensing-Based Crop Disease Detection for Precision Agriculture using Deep Learning PhD

2. **Mr. Ali Hamza** 2024 – Present
   Intrusion Detection System in O-RAN PhD

3. **Ms. Mahzaib Younus** 2025 – Present
   Deep learning for urban feature extraction from high resolution satellite imagery PhD

4. **Umer Iqbal** 2024 - Present
   Discovering Archaeological Sites and Land Cover/land-use Change in Chiniot using Remotely Sensed Images PhD

5. **Muhammad Haseeb Arshad** 2023 - Present
   Vulnerable Disease Prediction Using Remote Sensing/GIS PhD

6. **Awais Azam** 2022 - 2025
   A Unified Thematic Mapping Approach for Cross-Domain Personalization and Cold Start Alleviation PhD

7. **Adeel Ashraf Cheema** 2021- 2024
   Latent User-profiling for IoT facilitated Cross Domain Recommender Systems PhD

8. **Muhammad Usman** 2021- 24
   A Blockchain based Hybrid Access Control Model for IoT using Machine Learning PhD

9. **Ch. Usman Ghous** 2020 - 24
   Active Transfer Learning for Hyperspectral Image Classification PhD

10. **Mr Shahbaz Ahmed** 2014 – 20
    Web GIS-based Surveillance and Prediction System for Dengue Virus in Punjab Pakistan Ph.D.

11. **Ms. Nawal Fatima** 2023 – 2025
    Geospatial Cotton Crop Mapping and Land Suitability using Machine Learning and Remote Sensing MS

12. **Ms. Rohma** 2024 – 2025
    AI and Remote Sensing-Based Cotton Disease Detection in Pakistan MS

13. **Mr. Rameez Ahmed** — 2023 – present
AI-Driven Flood Impact Analysis on Agriculture in Pakistan using Remote Sensing — MS

14. **Ms. Esha Iftikah** — 2022 – 2024
Object Detection for Indoor Scene Using Deep Learning — MS

15. **Wania Fatima** — 2022 – 24
Influential Factors Affecting Students Academic Performance in Online Education — MS

16. **Kashaf Shakoor** — 2021 – 23
Dengue Risk Assessment Using real Time Climate and Enviorment Staellites Data — MS

17. **Areeba Waseem** — 2021 – 23
Trajectory and Hotspot Analysis of Hate Speech on Social Media Networks — MS

18. **Malahat Fatima** — 2017 – 21
Geo Spatial Technologies for Real Time Monitoring of Vector borne Diaseases and Forecasting Possible Threats — MS

19. **Mr. Umair Ashfaq** — 2020 – 22
Social Media Warn Audience Prediction for e-commerce Using Machine Learning — MS

20. **Ms. Mahnoor Khalid** — 2020 – 22
Plants Health Detection using Deep Learning — MS

21. **Samia Aziz** — 2020 – 22
Geo Spatial Mapping of Hate Speech Prediction in Roman Urdu — MS

22. **Momna Javaid** — 2020 – 22
WebGIS-Based Real-Time Surveillance and Response System for Vector Borne Infections Diseases — MS

23. **Aroosa Razzaq** — 2019 – 21
Maize Plants Disease Classification Using Multispectral Images — MS

24. **Rameen Zehra** — 2018 – 21
Temporal and Spatiotemporal Sentiment Analysis of Tourists on Flicker — MS

25. **Muhammad Hammad Musaddiq** — 2018 – 21
Geospatial and Machine Learning Techniques for Predicting Students Academic Performance — MS

26. **Talha Munir** — 2018 – 21
Air Pollution Prediction affecting Acute Respiratory Infection Disease using Remotely Sened Images — MS

27. **Nida Hussain** — 2018 – 21
Environmental Constraints of Optimization Crop Yield Prediction — MS

28. **Noor Asim** — 2018 – 21
Weed Identification using Vegetation indices and Multispectral UAV Imaging — MS

29. **Ms Farwa Ahmad** 2017 – 20
Expert Recommendation System in Community Question Answering Forum Based on Users
Profiles MS

30. **Ms Areeba Umair** 2018 – 20
Prediction of Career Projection Trajectories of Pakistani Graduates using LinkedIn Data M.Phil.

31. **Ms Sahar Ajmal** 2017 – 19
PUB-VEN: A Hybrid Expert System for Suggesting Publication Venue M.Phil.

32. **Ms Maryam Saeed** 2016 – 18
Web-based Intervention and Analysis System for the Parents of Depressed and Anxious Adolescent
M.Phil.

33. **Ms Madiha** 2016 – 18
Spatial Inter-relationship of Quality of Life with Socio and Demographic Factors M.Phil.

34. **Mr Shahbaz Baig** 2015 – 17
Analysing Spatial Dependencies of Contaminated Crops using Geospatial Technologies M.Phil.

35. **Ms Rafia Ilyas** 2012 – 14
Effective Solution of University Time Tabling using Practical Swarm Optimizer M.Phil.

36. **Mr Abdul Shakoor** 2010 – 12
Security Technique in Mobile Clouds to Ensure Malware Prevention M.Phil.

ACTIVITIES CONDUCTED AND SUPERVISED

1. Convocations 2019, 2021, 2022, 2023, 2024 & 2025

2. New Students Orientations 2019, 2021, 2022, 2023, 2024 & 2025

3. TEDx Organizer 2016, 2024 & 2025

4. Semester Positions Medal Distribution 2019, 2021, 2022, 2023, 2024 & 2025

5. Pakistan Engineering Council Visits 2019, 2021 , 2022 & 2023

6. National Computing Education Accreditation Council Visits 2017, 2019, 2020, 2021, 2023 & 2024

7. Institutional Performance Evaluation Visits 2019, 2020, 2022, 2023 & 2024

8. Faculty Development Workshops & Book Fair 2021, 2022, 2023, 2024 & 2025

9. Self Assessment Visits of BS/MS/PhD Programs Visits 2019, 2020, 2021, 2022, 2023, 2024 & 2025

10. Industrial Advisory Board Meetings 2019, 2021, 2022, 2023, 2024 & 2025

11. Job Fair at FAST-NUCES CFD Campus 2019, 2021, 2022, 2023, 2024 & 2025

12. Alumni Home Comings 2019, 2021, 2022, 2023, 2024 & 2025

13. Daira (Extra and Co-Curriculum Activities Events) 2019-2022, 2023, 2024 & 2025

14. Launch of New Degree Programs PhD (CS & EE), MS (CS & DS), BS (AI & SE, Business
Analytics, FinTech, and Technology)

1. **AHZ Pakistan:** A meaningful collaboration aimed at expanding global exposure and educational opportunities for students.

2. **Mukhtar A. Sheikh Hospital:** To foster collaboration on medical data and AI integration to advance research and innovation.

3. **Akhuwat Foundation:** To promote quality education in less developed areas of Pakistan.

4. **ASK Development:** To empower students and strengthen the link between academia and industry.

5. **Bloctech Solutions:** To build strong synergy between industry and academia.

6. **City University Malaysia:** Joint Research Collaboration.

7. **Cogent Labs:** To bridge the gap between academia and industry, and to help students gain insights into the latest technological innovations and industrial projects.

8. **Content Arcade:** To provide scholarship opportunities to deserving & bright students of BSCS & BSSE.

9. **Crewlogix Technologies:** To promote professional development, access to new technologies, and skill development, Crewlogix will also host bi-weekly/monthly webinars.

10. **DevNation:** To gain insight into the latest technological innovations & Industrial projects.

11. **E-Med Society - Punjab Medical University:** Devise strategies and activities in Health, Education, and Joint CSR Activities.

12. **EPTeck Technologies Pvt. Ltd.:** To strengthen linkages between industry & academia and foster joint research activities, job placements, and internships.

13. **Faisalabad I.T Companies Organization – FITCO:** To foster research, industry linkages, training, education, and employment opportunities within FITCO member companies.

14. **Fastdev:** Fastdev will serve as the E-Ticketing partner for events of Campus.

15. **Game Train:** To serve the youth with quality education, training, relevant tech-centric skill development, industry-leader mentorship, and promising placement opportunities.

16. **Kaavish Foundation:** To organize various fund-raising activities, blood drives, and medical camps.

17. **Kay & Emms (Pvt.) Ltd.:** To support financially challenged students.

18. **Key & Emms (Pvt.) Ltd.:** To create a skilled workforce to meet industry requirements.

19. **Migrant Resource Center:** To enhance active cooperation and deliver sessions on academic & employment opportunities abroad, and guidance for safe migration options.

20. **MTM:** To bridge the gap between academia and industry in the learning and development of MTM employees. FAST NUCES CFD faculty will provide expertise as independent external examiners for evaluating MTM Corporate Academy.

21. **Netixsol:** To enable the students to gain exposure to the blockchain industry.

22. **Newage Cables:** To sponsor the full tuition fee of three deserving/talented students.

23. **OZI Group:** To promote and strengthen industry-academia linkages, bridge the gap between industry and academia, and provide placement & internship opportunities for the students.

24. **POA Solutions:** To collaborate for technology development, student excellence, and strong industry-academia linkage.

25. **Qbatch:** To provide students with professional experience through internships and final-year projects with the Qbatch team.

26. **Read Pakistan:** To promote literary activities at FAST-NUCES CFD.

27. **Sadaqat Limited:** To strengthen industry-academia linkages and support financially challenged, talented students with educational expenses.

28. **Systems Limited:** To open a new avenue for our students to gain insight into the latest technological innovations, and industrial projects, promote skill development, research activities, and graduate placement opportunities.

29. **Technupur:** To collaborate to fulfill common goals such as technology development, student excellence, and strong industry-academia linkage.

30. **VANAR:** To empower the youth of Pakistan by providing them with invaluable opportunities for learning, employment, and entrepreneurship.

STRATEGIC CAMPUS DEVELOPMENT AND RESOURCE ALLOCATION

As Director, I have demonstrated exceptional leadership by strategically allocating resources to enhance infrastructure, advance research capabilities, and support faculty and staff development. A total of PKR 5,280 million (2020–2025) has been effectively utilized to modernize campus facilities, promote academic excellence, and ensure operational efficiency.

Sr.	Categories	Amount (PKR Millions)
1	Infrastructure Development and Expansion	2,418
2	Computing Facilities and Technological Upgrades	184
3	Research and Development Initiatives	57
4	Workforce Benefits and Retention Programs	1,429
5	Operational Maintenance and Enhancements	1,193
6	Award of Internal Financial Assistance to Needy Students (CFD Campus)	466
7	Funds Acquired from External Sponsor Bodies for Needy Students (CFD Campus) (CFD Campus)	49
8	Infrastructure development of Multan Campus	952

Intrnational Visists

Country	From	To	Nature	Purpose
Australia	02-August-2025	10-August-2025	Official	Geoscience and Remote Sensing Symposium
China	15-June-2025	20-June-2025	Official	CPEC Consortium of Universities
Canada	23-Mar-25	12-Apr-25	Official	Collaboration and Invited Talk
Qatar	22-Mar-25	23-Mar-25	Personal	Tourism
Malaysia	23-Feb-2025	01-Mar-2025	Official	Collaboration among universities
UAE	21-Dec-2024	05-Jan-2025	Personal	Tourism
Malaysia	26-Oct-2024	29-Oct-2024	Official	UTeM & City University
Australia	15-Oct-2024	26-Oct-2024	Official	ISPRS Symposium
Thailand	11-Oct-2024	14-Oct-2024	Personal	Tourism
Singapore	08-Oct-2024	11-Oct-2024	Personal	Tourism
Malaysia	05-Oct-2024	08-Oct-2024	Official	Collaboration with UiTM
China	21-June-2024	25-June-2024	Official	Congress on AI
China	15-Apr-2024	26-Apr-2024	Official	Workshop
China	01-Dec-2023	10-Dec-2023	Official	Conference
Saudi Arabia	23-05-2023	05-Jul-2023	Personal	Hajj
Saudi Arabia	10-Dec-2022	25-Dec-2022	Personal	Umrah
Cyprus	19-Mar-2019	24-Mar-2019	Official	Conference
Malaysia	13-Oct-2018	25-Oct-2018	Official	Conference
China	06-May-2018	11-May-2018	Official	Conference
UAE	03-May-2018	06-May-2018	Personal	Tourism
India	04-Dec-2014	12-Dec-2014	Official	Conference
Indonesia	24-Oct-2013	01-Nov-2013	Official	Trainer
USA	24-Aug-2013	10-Sep-2013	Official	Conference
Thailand	13-Aug-2013	23-Aug-2013	Personal	Tourism
Sri Lanka	06-Nov-2012	10-Nov-2012	Official	Conference
Japan	31-Jul-2011	13-Aug-2011	Official	Cultural Activities
Australia	10-Apr-2011	23-Apr-2011	Official	Conference
Jordan	31-Mar-2011	08-Apr-2011	Official	Workshop
Japan	01-Aug-2010	18-Mar-2011	Official	Visiting Researcher
Malaysia	25-Jul-2010	29-Jul-2010	Official	Conference
Thailand	23-Jan-2008	22-Dec-2012	Official	Doctoral Degree

Biography

Dr. Muhammad Shahzad Sarfraz is a prominent figure in the fields of Computer Science and Geospatial Technologies. He spearheads key thematic areas including ICT tools for Health, Agriculture, and Location-based Systems, with a keen focus on their applications for the Environment. Dr. Shahzad specializes in utilizing web-based and machine learning open-source tools for Remote Sensing & Geographical Information Systems.

His academic contributions are substantial, encompassing more than 50 journal and conference papers. Additionally, he has developed tools tailored to organizational needs, conducted readiness assessments, and evaluated eHealth initiatives. Dr. Shahzad boasts extensive experience in planning, initiating, and overseeing the Computer Science Department and Evening Programs at the University of Gujrat. Moreover, he has demonstrated adeptness in catalyzing and coordinating research activities within the department.

Currently serving as a Professor in the Computer Sciences department and Director at the Chiniot-Faisalabad as well as Multan campus of the university. Dr. Shahzad Sarfraz has held distinguished positions in various institutions. Before joining the FAST-National University of Computer and Emerging Sciences, he served as an Associate Professor, Chairperson of the Computer Science Department, and Director of Evening Programs at the University of Gujrat and COMSATS Institute of Information Technology. His academic journey includes roles as an Assistant Professor at NUCES and a Ph.D. scholar at the Asian Institute of Technology (AIT), Thailand.

Dr. Shahzads global exposure extends to his tenure as a visiting researcher in the Digital Image Processing lab at the National Institute of Informatics (NII), Tokyo, Japan. He has actively participated in seminars and workshops, both nationally and internationally, fostering collaborative research across the globe. A member of esteemed international societies such as IEEE, ACM, Canadian Remote Sensing, International Association of Chinese Professionals in GIS, and more, Dr. Shahzad also served as a resource person for the World Health Organization (WHO) and Pak One Health Alliance, Pakistan, facilitating capacity-building workshops on analytical skills and information utilization.