







Active Researcher specialization in Network Evaluation (NE) & Usability Evaluation (UE): Network Evaluation: Topological Empowerment of Certain Computer Networks and Architectures by Modern Invariants using Maplesoft and optimization-assistant Especially Bridge Networks. UE: Usability Evaluation of Interfaces and Mobile Applications, User Context Modeling, User Centered Design (UCD); Empowerment of Educational Mobile Applications in Context Usability, ANOVA, RSM, RSQM, and RSLM-based Usability Evaluation of Mobile Applications especially Visually Impaired Persons, Disables, Kids, Grown-ups etc.    

Dr. KHALID HAMID

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ResearchGate:
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[0000-0002-2853-4448](https://orcid.org/0000-0002-2853-4448)
<https://orcid.org/my-orcid?orcid=0000-0002-2853-4448>

Google Scholar:
<https://scholar.google.com/citations?user=vBT8XZMAAAAJ&hl=en>

Linkedin:
<https://www.linkedin.com/in/dr-khalid-hamid-945385200/>

Scopus:
<https://www.scopus.com/authorid/detail.uri?authorId=57702518800>

WoS:
<https://sciprofiles.com/profile/KHALIDHAMID>

Skill Highlights

- Active Researcher
- Project Management
- Strong Decision Maker
- Complex Problem Solver
- Innovative
- Service-Focused

Languages

Urdu
English

Experience

	01/2023 to 06/2024
Assistant Professor (Visiting) Computer Science University of Education, Division of Science and Technology, Township Campus Lahore, Pakistan Responsibility: Deal graduate classes	
	10/2021 to 06/2024
Assistant Professor Computer Science National College of Business Administration & Economics University, East Canal Lahore, Pakistan Responsibility: Deal graduate classes	
	04/2017 to 09/2021
Assistant Professor (Visiting) Computer Science National College of Business Administration & Economics University, East Canal Lahore, Pakistan Responsibility: Deal graduate classes	
	04/2012 to 12/2015
Lecturer Computer Science (Visiting) University of Gujrat, Lahore Campus, Lahore, Pakistan Responsibility: Deal graduate classes	
	07/2006 to 03/2012
DBA & IT Incharge Driving License Department, City Traffic Police Lahore, Pakistan Responsibility: <ul style="list-style-type: none">• Installation of Oracle Application, Solve the Run Time Queries & Backup the Database• Installation of Software used, maintenance of Database & Networks• Give the services to secure the software used and mature the Oracle Software collaboration with NetSol Technologies	

Education

	2020-2023
Doctor of Philosophy: Computer Science Institution: Superior University, Gold Campus, Lahore, Pakistan Thesis Title: Topological Investigation of Computer Networks by Certain Invariants	
	2014-2016
Master of Philosophy: Computer Science Institution: Minhaj University Lahore, Pakistan Thesis Title: Analysis for Detection and Removal of Zero-Day Attacks	
	2004-2007
Master of Science: Computer Science Institution: PUCIT, University of the Punjab, Old Campus, Lahore, Pakistan Project Title: IT Culture for Micro Tech Industries.	
	2000-2003
Bachelor of Science and Education Institution: University of the Punjab, Lahore, Pakistan Thesis Title: The Preparation of Abstracts of Thesis of B.S.Ed. Students	
	1998-2000
Faculty of Science: Pre-Engineering Board of Intermediate & Secondary Education Lahore, Pakistan	
	1996-1997
Matriculation: Science Board of Intermediate & Secondary Education Lahore, Pakistan	

Journal Publications

1. **K. Hamid** et al., “ML-based Meta-Model Usability Evaluation of Mobile Medical Apps,” International Journal of Advanced Computer Science and Applications (IJACSA), vol. 15, no. 1, Art. no. 1, 33/30 2024, doi: 10.14569/IJACSA.2024.0150104. **Scopus Indexed.**
2. **K. Hamid**, Z. Aslam, A. M. Delshadi, M. I. Ibrar, Y. Mahmood, and M. W. Iqbal, “Empowerments of Anti-Cancer Medicinal Structures by Modern Topological Invariants,” *Journal of Medicinal and Chemical Sciences*. vol. 7, no. 5, pp. 668-683, 2024, doi.org/10.26655/JMCHEMSCI.2024.5.1. **Scopus Indexed.**
3. **K. Hamid**, M. W. Iqbal, M. U. Ashraf, A. M. Alghamdi, A. A. Bahaddad and K. A. Almarhabi. “Optimized Evaluation of Mobile Base Station by Modern Topological Invariants”. *Computers, Materials and Continua (CMC)*. Vol. 74(1), Pp.363-378, 2023. **Impact Factor 3.860**
4. **K. Hamid**, M. W. Iqbal, Q. Abbas M. Arif, A. Brezulianu, and O. Geman. “Cloud Computing Network Empowered IoT by Modern Topological Invariants”. *Applied Sciences, MDPI. Appl. Sci.*, vol. 13, p. 18, Jan. 2023. **Impact Factor 2.838**
5. **K. Hamid**, M. W. Iqbal, E. Arif, Y. Mahmood, A. S. Khan, N. Kama, A. Azmi and A. Ikram. “K-Banhatti Invariants Empowered Topological Investigation of Bridge Networks”. *Computers, Materials and Continua (CMC)*. Vol. 73(3), Pp.5423-5440, 2022. **Impact Factor 3.860**
6. **K. Hamid**, M. W. Iqbal, A. U. R. Virk, M. U. Ashraf, A. M. Alghamdi, A. A. Bahaddad and K. A. Almarhabi. “K-Banhatti Somber Invariants of Certain Computer Networks”. *Computers, Materials and Continua (CMC)*. Vol. 73(1), Pp.15-31, 2022. **Impact Factor 3.860**
7. **Khalid Hamid**, Muhammad Waseem Iqbal, M.Usman Ashraf, Shafiq Ahmad, Mejdal Alqahtani, Akber Abid Gardezi and Muhammad Shafiq. “Intelligent Systems and Photovoltaic Cells Empowered by Topological Investigation of Sudoku Networks”. *Computers, Materials and Continua (CMC)*. vol. 74, pp. 4221–4238, Nov. 2022. **Impact Factor 3.860**
8. Ahmed M. Alghamdi, **Khalid Hamid**, Muhammad Waseem Iqbal, M. Usman Ashraf, Abdullah Alshahrani, and Adel Alshamrani. “Topological Evaluation of Certain Computer Networks by Contraharmonic-Quadratic Indices”. *Computers, Materials and Continua (CMC)*. vol. 74, pp. 3795–3810, Oct. 2022. **Impact Factor 3.860**
9. **K. Hamid**, M. W. Iqbal, Q. Abbas M. Arif, A. Brezulianu, and O. Geman. “Discovering Irregularities from Computer Networks By Topological Mapping”. *Applied Sciences, MDPI*. Vol. 12, no. 23, Pp. 41-54, 2022. **Impact Factor 2.838**
10. N. Rasool, S. Khan, U. Haseeb, S. Zubair, M. waseem Iqbal, and **K. Hamid**, “Scrum and the Agile Procedure’s Impact on Software Project Management,” *Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition)*, vol. 42, pp. 380–392, Feb. 2023. **Scopus Indexed**
11. M. Aqeel, **K. Hamid** et al., “Response Surface Methodology-Based Usability Evaluation of Apps for Visually Impaired Persons,” *Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition)*, vol. 42, pp. 532–545, Mar. 2023. **Scopus Indexed**
12. S. Rafiq, M. waseem Iqbal, M. Anwar, M. Aqeel, and **K. Hamid**, “Speedy ACD Based Haptic Interfaces for Bone Fixation,” *Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition)*, vol. 42, p. 22, Apr. 2023. **Scopus Indexed**
13. M. Awais, M. Tahir, R. Farid, S. Zubair, M. waseem Iqbal, and **K. Hamid**, “Guide-A Tool to Detect the GUI Elements to Enhance the Efficiency of Testing,” vol. 42, pp. 55–69, Apr. 2023. **Scopus Indexed**
14. Z. Zafar, **K. Hamid**, M. Kafayat, M. waseem Iqbal, Z. Nazir, and A. Ghani, “AI-Based Cryptographical Framework Empowered Network Security,” *Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition)*, vol. 42, pp. 497–510, Apr. 2023. **Scopus Indexed**
15. W. Syed, A. Ahmed, S. Zubair, M. waseem Iqbal, S. Arif, and **K. Hamid**, “Fuzzy-Based Expert System for Test Case Generation on Web Graphical User Interface for Usability Test Improvement,” *Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition)*, vol. 42, pp. 549–565, May 2023. **Scopus Indexed**
16. A. Nazir, **K. Hamid**, and M. waseem Iqbal, “An Efficient Approach for Data Transmission using the Encounter Prediction” *Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/Journal of Tianjin University Science and Technology*, vol. 56, pp. 92–109, Jun. 2023. **Scopus Indexed**
17. S. Bhatti, **K. Hamid**, and M. waseem Iqbal, “Solutions, Countermeasures, and Mitigation Methods for the Rise of Automotive Hacking,” *Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/Journal of Tianjin University Science and Technology*, vol. 56, pp. 77–99, Jun. 2023. **Scopus Indexed**
18. Z. Nazir, **K. Hamid** et al., “Voice Assisted Real-Time Object Detection using Yolo V4- Tiny Algorithm for Visual Challenged,” *Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/Journal of Tianjin University Science and Technology*, vol. 56, p. 2023, Feb. 2023. **Scopus Indexed**

Publications

19. H. Riasat, S. Akram, M. Aqeel, M. W. Iqbal, **K. Hamid**, and S. Rafiq, “Enhancing Software Quality Through Usability Experience And HCI Design Principles,” vol. 42, pp. 46–75, Feb. 2023, doi: 10.17605/OSF.IO/MFE45. **Scopus Indexed**.

20. T. Iftikhar, S. Zubair, M. W. Iqbal, **K. Hamid**, and A. Nazir, “Cost Effective About IoT-Based Accordingly to Weather Monitoring System Development and Improve Average of Crops,” *Jilin Daxue Xuebao Gongxueban*/*Journal Jilin Univ. Eng. Technol. Ed.*, vol. 42, pp. 123–152, Feb. 2023, doi: 10.17605/OSF.IO/TKAH8. **Scopus Indexed**.

21. H. H. Khan, M. Afzal, S. Zubair, M. W. Iqbal, M. Atif, and **K. Hamid**,. “Devops Methodology Impact on Software Projects to Lead Successes and Failure through Kubernetes”. *Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition)*. Vol. 41, no. 11, Pp. 610-620, 2022. **Scopus Indexed**

22. H. A. B. Muhammad, S.U. Bhatti, M. A. Nazir, M. Nazim, M. W. Iqbal, S. A. Hasan, and **K. Hamid**. “ML-Based Usability Evaluation of Educational Mobile Apps for Grownups & Adults”. *Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition)*. 2022. **Scopus Indexed**

23. H. A. B. Muhammad, R. Rashed, Z. Nazir, D. Irfan, M. W. Iqbal and **K. Hamid**. “Empowerments of Chemical Structures used for Curing Lungs Infections by Modern Invariants”. *Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition)*. 2022. **Scopus Indexed**

24. **K. Hamid**, M. W. Iqbal, M. R. Naqvi et. al, “Empowerment of Sierpinski Interconnection Networks in Computer Engineering and Electronics by Invariants”. *IEEE Access*. 2023. **Under Review**.

25. **K. Hamid**, H. A. B. Muhammad, S.U. Bhatti, M. A. Nazir, M. Nazim, M. W. Iqbal, and S. A. Hasan. “Irregularity Investigation Of Certain Computer Networks Empowered Security”. *Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition)*. 2022. **Scopus Indexed**

26. D. Hussain, S. Rafiq, U. Haseeb, M. W. Iqbal, **K. Hamid**, S. U. Bhatti and M. Aqeel. “HCI Empowered Automobiles Performance by Reducing Carbon-Monoxide”. *Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition)*. Vol. 41, no. 12, Pp. 48-74, 2022. **Scopus Indexed**

27. S. Z. Ul-hassan, M. S. Malik, M. W. Iqbal, Shaheryar, M. Zubair, M. Rehman and **K. Hamid**. “Wireless Router Forensics Finding Artifacts of Suspect Traces with a Raspberry Pi and Kali Linux”. *Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition)*. Vol. 41, no. 12, Pp. 48-74, 2022. **Scopus Indexed**

28. H. A. B. Muhammad, S. Ahmad, Z. Nazir, **K. Hamid**, M. W. Iqbal, M. A. Nazir, and H. Muneeza. “ML-Based Meta Model Evaluation of Mobile Apps Empowered Usability of Disables”. *Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/ Journal of Tianjin University Science and Technology*. **Scopus Indexed**

29. **K. Hamid**, M. W. Iqbal, H. A. B. Muhammad, Z. Fuzail, Z. T. Ghafoor and S. Ahmad. “Usability Evaluation of Mobile Banking Applications in Digital Business as Emerging Economy”. *International Journal of Computer Science and Network Security (IJCSNS)*. Vol. 22 no.2, Pp. 250-260, 2022. **Web of Science Indexed**

30. **K. Hamid**, M. W. Iqbal, Z. Fuzail, H. B. Muhammad, Z. Nazir and Z. T. Ghafoor. “Detection of Brain Tumor from Brain MRI Images with the Help of Machine Learning & Deep Learning”. *International Journal of Computer Science and Network Security (IJCSNS)*. Vol. 22 no.5, Pp. 709-720, 2022. **Web of Science Indexed**

31. **K. Hamid**, M. W. Iqbal, Z. Nazeer, H. A. B. Muhammad and Z. Fuzail. “Usability Empowered by User’s Adaptive Features in Smart Phones: The RSM Approach”. *Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/ Journal of Tianjin University Science and Technology*. Vol. 55, no. 7, Pp. 285-304, 2022. **Scopus Indexed**.

32. **K. Hamid**, M. W. Iqbal, H. A. B. Muhammad, Z. Nazir, and Z. Fuzail. “ANOVA Based Usability Evaluation of Kid’s Mobile Apps Empowered Learning Process”. *Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition)*. Vol. 41, no. 6, Pp. 142-169, 2022. . **Scopus Indexed**

33. A. Virk, S. Bilal, and **K. Hamid**, “Irregularity invariants for chemical structures used in the treatment of COVID-19,” *SIR*, vol. 4, no. 1, pp. 38-60, 2020. **Scopus Indexed**

34. **Khalid Hamid**, Muhammad Waseem Iqbal, Erssa Arif, M. Usman Ashraf, Shafiq Ahmad, Adamali Shah N. M. and Muhammad Shafiq. “Investigation of Block Shift and Hierarchical Hyper Cube Networks by K-Banhatti Sombor Invariants”. *Computers, Materials and Continua (CMC)*. Vol. xx(x), Pp.xxxx-xxxx, 2022. **Under Review**.

Journal Publications

35. **K. Hamid**, M. W. Iqbal, H. A. B. Muhammad, S. U. Bhatti, and M. A. Hamza. “Topological Analysis Empowered Bridge Network Variants by Dharwad Indices”. Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition). Vol. 41, no. 10, Pp. 53-67, 2022. **Scopus Indexed**

36. **K. Hamid**, M. W. Iqbal, H. A. B. Muhammad, Z. Nazir, and Z. Fuzail. “Response Surface Methodology for the Extraction of Polyphenol Contents and HPLC Profiling of Cucumis Sativus Peels”. Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition). Vol. 41, no. 10, Pp. 41-52, 2022. **Scopus Indexed**

37. **K. Hamid**, M. W. Iqbal, et al., “Empowerment of Chemical Structures used in Anti-Cancer and Coronavirus Medicines”. Tianjin Daxue Xuebao (Ziran Kexue yu Gongcheng Jishu Ban)/ Journal of Tianjin University Science and Technology. Vol. 55, no. 8, Pp. 41-54, 2022. **Scopus Indexed**

38. **K. Hamid**, H. A. B. et al., “Extendable Banhatti Sombor Indices for Modeling Certain Computer Networks”. Jilin Daxue Xuebao (Gongxueban)/Journal of Jilin University (Engineering and Technology Edition). Vol. 41, no. 11, Pp. 69-87, 2022. **Scopus Indexed**

Book Chapter Publications

39. **K. Hamid**, M. W. Iqbal, M. Aqeel, T. A. Rana, and M. Arif, “Cyber Security: Analysis for Detection and Removal of Zero-Day Attacks (ZDA),” in Artificial Intelligence & Blockchain in Cyber Physical Systems, CRC Press, Taylor & Francis, 2023.

Conference Publications

40. **K. Hamid**, M. W. Iqbal, M. Aqeel, X. Liu, and M. Arif, “Analysis of Techniques for Detection and Removal of Zero-Day Attacks (ZDA),” in *Ubiquitous Security*, G. Wang, K.-K. R. Choo, J. Wu, and E. Damiani, Eds., Singapore: Springer Nature, 2023, pp. 248–262. doi: 10.1007/978-981-99-0272-9_17 UbiSec 2023.

41. A. Ibrahim, **K. Hamid** et al., “Usability Evaluation of Kids’ Learning Apps,” in 2023 International Conference on Business Analytics for Technology and Security (ICBATS), Mar. 2023, pp. 1–10. doi: 10.1109/ICBATS57792.2023.10111473.

42. M. waseem Iqbal, K. Khaliq, N. Al-Dmour, M. Aqeel, N. Ali, and **K. Hamid**, “Internet of Things (IoT) in Smart Cities: A Statistical Survey,” in 2023 International Conference on Business Analytics for Technology and Security (ICBATS), Mar. 2023, pp. 1–6. doi: 10.1109/ICBATS57792.2023.10111206.

43. S. Noaman, **K. Hamid** et al., Playing the video games during COVID-19 pandemic and its effects on player’s well-being,” in 2023 International Conference on Business Analytics for Technology and Security (ICBATS), Mar. 2023, pp. 1–5. doi: 10.1109/ICBATS57792.2023.10111229.

44. M. Salahat, **K. Hamid** et al., “Software Testing Issues Improvement in Quality Assurance,” in 2023 International Conference on Business Analytics for Technology and Security (ICBATS), Mar. 2023, pp. 1–6. doi: 10.1109/ICBATS57792.2023.10111145.

45. **K. Hamid**, M. W. Iqbal, “Usability Impact of Adaptive Culture in Smart Phones”. *VIPERC2022 1st International Virtual Conference on Visual Pattern Extraction and Recognition for Cultural Heritage Understanding*. University G. d. Annunzio Chieti-Pescara. 2022.

46. **K. Hamid**, M. W. Iqbal et al., “Meta Model Analysis of Mobile-Apps Usability for Technology-Literate and Illiterate People”, *International Conference on Computing & Emerging Technologies (ICCET) 2023*, ICCET2023. Accepted

47. **K. Hamid**, M. W. Iqbal et al., “A Survey on DevOps in Practice”, International Conference on Computing & Emerging Technologies (ICCET) 2023, ICCET2023. Accepted

48. **K. Hamid**, M. W. Iqbal et al.,” Haptic Interfaces for bone Plating and Fixation Using HACD and HCI Techniques”, International Conference on Computing & Emerging Technologies (ICCET) 2023, ICCET2023. Accepted

49. **K. Hamid**, M. W. Iqbal et al.,” User Experience (UX) Enrichment Through Digital Branding”, *International Conference on Computing & Emerging Technologies (ICCET) 2023*, ICCET2023. Accepted

50. **K. Hamid**, M. W. Iqbal, et al.,” Identify Techniques from The Literature That Can Improve an Application’s Security Using Its Source Code”, *International Conference on Computing & Emerging Technologies (ICCET) 2023*, ICCET2023. Accepted

Conference Attended

02

Conference Papers

06

Conference Publications

- 51. **K. Hamid**, M. W. Iqbal, et al.,” Analysis and Development of Kids’ Cell Activities Monitoring App”, *International Conference on Computing & Emerging Technologies (ICCET) 2023*, ICCET2023. Accepted
- 52. **K. Hamid**, M. W. Iqbal, et al.,” Systematic Literature Review on How Application Security (in the context of source code) Is Described in The Literature”, *International Conference on Computing & Emerging Technologies (ICCET) 2023*, ICCET2023. Accepted
- 53. K. Khaliq, M. W. Iqbal, Nor Zairah Ab Rahim Razak, **K. Hamid**, et al.,” Ransomware Attacks: Tools and Techniques for Detection”, *2nd International Conference on Cyber Resilience 2024 (ICCR2024) IEEE*. Accepted
- 54. N. Akhtar, M. W. Iqbal, **K. Hamid**, et al.,” Behavior and Characteristics of Ransomware - A Survey”, *2nd International Conference on Cyber Resilience 2024 (ICCR2024) IEEE*. Accepted

Conference Attended

- 1. Attended and presented. VIPERC2022: 1st International Virtual Conference on Visual Pattern Extraction and Recognition for Cultural Heritage Understanding, 12 September 2022, Italy.
- 2. Attended and Presented in UbiSec 2022: The Second International Conference on Ubiquitous Security, EasyChair for UbiSec 2022.

Certifications

- 1. **Key Issues in Writing a Research Paper (2021)**
Key Points: This course teaches the fundamental principles of writing research papers and key issues regarding writing a research paper.
- 2. **How to Start Publishing; Step by Step Guide (2021)**
Key Points: It is about different steps involving publishing your research. How the new researchers start publishing their work.
- 3. **Journal Indexing and How to Improve Citation Index (2022)**
Key Points: What are index and citation? How a researcher can improve his citation index and also journal index.
- 4. **Demystifying the Research the Research Publication Process (2022)**
Key Points: What is the research publication process? What are the key issues involving research publications? How we clearly explain and understand the research publication process.
- 5. **International Collaboration in Research (2022)**
Key Points: How researchers can collaborate internationally to improve the research writing and publication processes.

Awards

- 1. **Scholarship In 1st Semester of M.Phil. Computer Science Cash Prize Rs/- 5000**
- 2. **Certificate of Appreciation Winner of PhD 3-Minutes Thesis Pitch Competition Superior Technical Symposium**
- 3. **Certificate of Appreciation CS & IT PG Bash 2023 Intellect Connect of Ph.D. Research**

References

References available on request