Dr. Najeed Ahmed Khan
Professor of Artificial Intelligence
(HEC Approved Supervisor)
Co-PI National Centre for Artificial Intelligence (Smart City Lab)
Executive Officer (CSRD)
Caretaker: MoST Chair Professor
https://csrd.neduet.edu.pk/

Postal Details	Department of Computer Science & Information Technology, NED University of Engineering & Technology Karachi Pakistan.
Residence	B-120 Block 1, Gulistan-e-Jouhar. Karachi Pakistan.
Phone	+92 21 99261261 Ext. 2502, 2503, Direct: +92 92 99261298
Cell	+92 3002171407
D.O.B	19, March 1966
Nationality	Pakistani
Marital Status	Married
E-Mail	najeed@neduet.edu.pk, najeed@hotmail.com

Specializations:
Artificial Intelligence (Computer Vision)

Objective: Technology contributions to the world for the benefit of humanity.

Administrative Position:
Head: Centre for Software Research and Development **(CSDR)**, at NED University of Engineering & Technology, established under MoST Endowment - Ministry of Science & Technology, Pakistan.

Membership:
- Senior Member of International Association of Computer Science and Information Technology (IACSIT). **(Membership NO. : 80345526)**
- Member Asian Council of Science Editors (**ACSE**)
- Professional Member - **Association of Computing Machinery (ACM)** (**Membership NO. : 5360765**)

Editor Journal:
- NED University Journal of Research – Applied Sciences (ISSN 1023-3873)

Reviewer/ Member Advisory Board:

- **Member**: **NCEAC Accreditation** Committee 2024.
- Focal Prime Minister initiative support for IT Startups, Specialized IT trainings and Venture Capital under Pakistan Software Export Board – September 2024.
- Focal person HEC Centralized Test or IT Graduates leading to placement in IT industry 2023.
- **Member**: Anti- Plagiarism Standing Committee, Bahria University Karachi.
- Member Panel of scrutiny, evaluators Competitive Research Projects, Pakistan Science Foundation since 2023.
- Member Panel of Examiners for Competitive Examinations, **Federal Public Service** Commission 2020-24.
- Member Advisory Board / Editorial Board of International Journal of Computer and Related Technologies (IJCRT). ISSN (Print): 2518-4806.
- Reviewer: Int. J. of Applied Pattern Recognition, ISSN: 2049-8888, July 2021.
- Reviewer: International Journal of Computer Theory and Engineering (IJCTE)
- (ISSN: 1793-820)
- Reviewer: International Journal of Advanced Computer Science and Applications (IJACSA), ISI index. ISSN: 2156-5570
- Book Review: Digital Logic Primer-A Practical, under Textbook & Monograph Writing Scheme - HEC Pakistan, 2015.
- Member Technical Program Committee: 17th IEEE Mediterranean Electro-technical Conference, April 2014 Beirut, Lebanon
- **External examiner**: PhD thesis, School of Computing and Informatics at **Universiti Teknologi Brunei, 5 July 2021**
- **External examiner**: PhD thesis, FAST University Karachi, NUST Karachi, Bahria University **Karachi, Sindh University, Mehran University Pakistan 2022,2021,2022,2023,2024**
- PC Member /Reviewer INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE ICAI'2021 (27-28 April 2021)
- PC Member/ Reviewer INTERNATIONAL CONFERENCE ON ARTIFICIAL INTELLIGENCE ICAI'2022 (30-31 March 2022)

Education:
- 2011: **PhD Computer Vision** (University of Leeds, United Kingdom)
- 1996: **M.Sc**. Computer Science, (CGPA 3.2), NED University of Engg. & Technology, Karachi, Pakistan.
- 1990**: M.Sc**. Applied Mathematics (First Class and First position, Gold Medalist), University of Karachi, Pakistan.
- 1987: Diploma of Associate Engineer (Electronics) First Division, Karachi, Pakistan

Prizes / Medals/Awards/Honors
- **Gold Medalist: Secure First Class and First position in MSc. Applied Mathematics 1990.**
- **Co-PI Smart City Lab,** National Center of Artificial Intelligence
- **Best Researcher Award** (NED University) for publishing 03 research papers in JCR list Journals in One year 2021.

3 times Best teacher award (2016-2023)
- **Best Teacher** award- **Professor** Category 2023, NED Alumni Association of Southern California (NEDAASC) - "Excellence in Teaching Award.
- **Best Teacher** award- **Associate Professor** Category 2018, NED Alumni Association of Southern California (NEDAASC), - "Excellence in Teaching Award - 2018"awarded in September 2021.

- **Best Teacher** award- **Assistant Professor** Category 2016, NED Alumni Association of Southern California (NEDAASC) - "Excellence in Teaching Award - 2017".
- **Best publication award 2019:** NED Alumni Association of Southern California (NEDAASC) - Najeed K., Hassan P., Arsalan A., Aysha, Sania, Unsupervised Identification of Malaria Parasites using Computer Vision, Pakistan Journal of Pharmaceutical Sciences (PJPS), ISSN:1011-601x, Vol.30, No.1, Jan. 2017 (IF 0.804). pp 223-228.
- **Expert Member**: Board of Studies of **Centre for Data Science** *GC University* **Faisalabad, Pakistan, February 2021.**
- **External Member**: Board of Faculty (Computing) at FAST National University of Computing Engineering Karachi Campus – July 2019 for 3 years.
- **External Member**: Board of Studies (Computer Engineering) at Sir Syed University of Engineering & Technology – Sep 2021 for 3 years.
- **External Member**: Board of Studies (Computer Engineering) at Mehran University of Engineering & Technology – April 2021 for 3 years.
- **External Member**: Board of Studies (Computer Engineering) at NHU Karachi 2022-2025.
- **Member** National Curriculum Revision Committee, Higher Education Commission- (HEC) Pakistan, since April 2017.
- **Subject Expert**, Selection Board, 99th- 110th Meeting at FAST National University of Computing Engineering Karachi Campus 4 July 2018, 2019, 2020, 2021, 2023.
- **Subject Expert:** Attended 2nd meeting of the Board of Faculties (Science & Engineering) at Khwaja Fareed University of Engineering & Information Technology (KFUEIT), Rahim Yar Khan - January 31, 2018.
- Member Program Teams (PTs) for Development of Self-Assistance Report (SAR) of Ph.D. Program at NED University.
- **HEC Focal Person (Sindh region)** - Under National Research Program for Universities **(NRPU)**.
- **Focal Person HEC- Microsoft Strategic Education Alliance** at NED University
- **Reviewer: HEC**- Technology Development Fund projects **(TDF)**.
- **Member Expert panel** - HEC-Technology Development Fund projects 2017-2018.
- **Focal person:** HEC - Microsoft Technical Skill Development.

Work Experiences: <u>Current positions:</u>

- **January 2022 to date: Professor**, Department of Computer Science & Information Technology, NED University of Engineering& Technology Karachi, Pakistan.
- **August 2011- January 2022:** Associate Professor, Department of Computer Science & Information Technology, NED University of Engineering& Technology Karachi, Pakistan.
- **Executive Officer and Caretaker: MoST Chair Professor**.
  https://csrd.neduet.edu.pk/

Previous positions:
- **From May 2005 to August 2011 Assistant Professor of Computer Science, Department of Computer Science and Information Technology, NED University of Engineering& Technology Karachi, Pakistan.**
- **From Jan 1997 to May 2005** Lecturer of Mathematics, Department of Mathematics, NED University of Engineering& Technology Karachi, Pakistan.
- **From Sep 1990 to Jan 1997** Lecturer of Mathematics Govt. Degree College, Government of Sind, Education Department Karachi, Pakistan.

List of Research Publications:

Journal Publications:

1. Mona Kanwal, Najeed A Khan, Aftab A Khan, A Machine Learning Approach to User Profiling for Data Annotation of Online Behavio, CMC-Computers, Materials & Continua, Vol.78, No.2, 2024/ 10.32604/cmc.2024.047223.

2. M. Kanwal, M. A. Khan, N. Ismat, N. A. Khan and A. A. Khan, "Machine Learning Approach to Classification of Online Users by Exploiting Information Seeking Behavior," in *IEEE Access*, vol. 12, pp. 53234-53249, 2024. doi: 10.1109/ACCESS.2024.3383444.

3. Kashif Mehboob Khan, Warda Haider, Najeed Ahmed Khan, Darakhshan Saleem, Big Data Provenance Using Blockchain for Qualitative Analytics via Machine Learning, Journal of Universal Computer Science, vol. 29, no. 5 (2023), DOI: 10.3897/jucs.93533.

4. Umme Laila, Najeed A. Khan, Asad Arfeen, Mission-Critical Open Source Software Adoption Model Validation using PLS-SEM, Journal of Software; Evolution and Process, ISSN 2047-7481, Oct 2022. DO - 10.1002/smr.2514 Print in 2023 Vol 35, issue 2.

5. Rida Aysha, Najeed A Khan. A YOLO-Deep Learning Algorithm for Improved Detection of Cell Phone Usage in Restricted Places, Journal of Xi'an Shiyou University, Natural Science Edition, ISSN 1673-064X, Vol. 18 Issue 9 September 2022 (P-250-257).

6. Rana Zeeshan Haider, Ikram Uddin Ujjan , Najeed Ahmed Khan , Eloisa Urrechaga and Tahir Sultan Shamsi. Beyond the In-Practice CBC: The Research CBC Parameters-Driven Machine Learning Predictive Modeling for Early Differentiation among Leukemias, Diagnostics (ISSN 2075-4418), JCR- IF 3.11, January 2022. https://doi.org/10.3390/diagnostics12010138

7. Adnan Baig, Najeed Ahmed Khan, Masood Rafi, A New approach for detection and evaluation of fire, IETE Journal of Research (JCR-IF 1.125). Oct 2021. Oct 2021. Print- TIJR Vol 69 Issue 2, 2023. https://doi.org/10.1080/03772063.2021.1992303

8. Umme Laila, Najeed A. Khan, Asad Arfeen, Framework for Identification of Critical Factors for Open Source Software Adoption Decision in Mission-Critical IT Infrastructure Services, IETE Journal of Research (JCR-IF 1.125). Oct 2021. Print- TIJR Vol 69 Issue 2, 2023 https://doi.org/10.1080/03772063.2021.1994036

9. Rana Zeeshan Haider, Najeed Ahmed Khan, Eloisa Maria Urrechagaigartua, Tahir Sultan Shamsi, Mature and Immature/Activated Cells Fractionation: Time for a Paradigm Shift in Differential Leucocyte Count Reporting?, Diagnostics (ISSN 2075-4418), JCR- IF 3.11, May 2021.

10. Marwan A. A. Hamid, Najeed A. Khan "Investigation and Classification of MRI Brain Tumors Using Feature Extraction Technique", Journal of Medical and Biological Engineering (Springer) (IF 1.173), pp 307-317, vol 40,(March 2020). 10.1007/s40846-020-00510-1

11. Umme Laila, Najeed A. Khan, Asad Arfeen, Shahzad Hassan, Trends of open source software in mission critical its services infrastructures adoption in local environment, Journal of Mechanics of Continua and Mathematical Sciences (Vol. 15, No. 8, August 2020, 0973-8975). https://doi.org/10.26782/jmcms.2020.08.00058.

12. T. Qamar, N. Z. Bawany, Najeed. A. Khan, "EDAMS: Efficient Data Anonymization Model Selector for Privacy-Preserving Data Publishing", Engineering Technology & Applied Science Research, ISSN2241-4487,1792-8036, vol. 10, no. 2, pp. 5423-5427, Apr. 2020, 10.48084/etasr.3374.

13. Marwan A. A. Hamid1, Walid Alhaidari, Waseemullah, Najeed Ahmed Khan, Bilal Ahmed Usmani, Syed. M. Wasim Raza, Dynamic Changes of Multiple Sclerosis Lesions on T2-FLAIR MRI using Digital Image Processing, International Journal of Advanced Computer Science and Applications, Vol. 11, No. 2, 2020.

14. Marwan Ahmed Ahmed Hamid, Maria Abdullah, Najeed Ahmed Khan and Yasmin Mohammed Ahmed AL-Zoom, "Biotechnical System for Recording Phonocardiography" International Journal of Advanced Computer Science and Applications, 0(8), 2019. DOI:10.14569/ijacsa.2019.0100864

15. Zulaikha Abdullah, Sufizar Ahmad, Azzura Ismail, Najeed A Khan. Processing of Porous Stainless Steel by Compaction Method Using Egg Shell as Space Holder, Key Engineering Materials, ISSN: 1662-9795, Vol. 791, pp 123-128, Nov, 2018. Trans Tech Publications, Switzerland.

16. Waseemullah, Najeed A. Khan. Unsupervised Ads detection in TV transmissions. International Journal of Advanced Computer Science and Applications, ISSN:2156-5570, May 2018.

17. Mohd Hafiz Mohd Ali, Hamimah Abdul Rahman , Shahrin Hisham Amirnordin, Najeed Ahmed Khan, Eco-Friendly Flame-Retardant Additives for Polyurethane Foams: A Short Review, Key Engineering Materials, *ISSN: 1662-9795,* Vol. 791, pp. 19-28, 2018. https://doi.org/10.4028/www.scientific.net/KEM.791.19

18. Umer F., Najeed A K, Shabbar M A. Unsupervised Video Surveillance for Anomaly Detection of Street Traffic, International Journal of Advanced Computer Science and Applications, pages: ISI. ISSN: 2156-5570, December 2017.

19. Najeed Ahmed Khan, Shehnila Zardari, Asif Ahmed Shaikh, Masood Rafi, Sana Shaukat, Computer Vision Based Displacement Measurement of Shake Table, International Journal of Computer Science & Network Security, Vol.17, No.5 2017.

20. Sarang S., M. Ajmal Sawand, Najeed Ahmed Khan and Farhan Badar Solangi, Comprehensive Understanding of Intelligent User Interfaces, International Journal of Advanced Computer Science and Applications,pages,395-401, Vol.08, Issue 6, June 2017.

21. Najeed Ahmed Khan, M. Ajmal Sawand, Maryam Qadeer, Anum Owais, Sarah Junaid, Phunparah Shahnawaz, Autism Detection using Computer, International Journal of Computer Science & Network Security, Vol.17, No.4 2017.

22. Najeed Ahmed Khan, Umair Amin, Waseemullah, Muhammad Umer. Unsupervised Commercials Identification in Videos. International Journal of Advanced Computer Science and Applications (IJACSA), ISI. ISSN: 2156-5570 Volume 8 Issue 2, pp 127-133, March 2017.

23. Najeed K., Hassan P., Arsalan A., Aysha, Sania, Unsupervised Identification of Malaria Parasites using Computer Vision, Pakistan Journal of Pharmaceutical Sciences (PJPS), ISI, ISSN:1011-601x, Vol.30, No.1, January 2017 (Impact Factor: 0.804). pp 223-228.

24. Engr. Maria Sohail, Najeed Ahmed Khan, Shariq M. Khan, Domineering Analysis & Mitigation of IP-SEC VPN Using GNS3, International Journal of Computer Science & Network Security, pages 245-250, Master Journal list, Vol.17, No.4 2017.

25. Ajmal S. M. Najeed A. K., Privacy and Security mechanisms for eHealth monitoring systems, International Journal of Advanced Computer Science and Applications (IJACSA), ISI index. ISSN: 2156-5570, Volume 8 No. 4,pages; 533-537, April 2017.

26. Shariq M. Khan, Mubashir M. Khan, Najeed A. Khan, Route Constancy and Energy Aware Routing Protocol for MANET, International Journal of Computer Science & Network Security, Vol.17, No.5 2017.

27. M. Ajmal Sawand, Najeed Ahmed Khan, Abdul Rehman Soomrani and Sheraz Ali, Energy efficient e-Healthcare system, International Journal of Computer Science & Network Security, Vol.17, No.4 2017.

28. Shariq M. Khan, Mubashir M. Khan, Najeed A. Khan , Waseemullah, Efficient and Reliable Reactive Routing Protocol for Mobile Ad-Hoc Network, International Journal of Computer Science & Network Security, Vol.17, No.4 2017.

29. Engr. Maria Abdullah, Najeed Ahmed Khan, Intelligent System Using MI in E-Learning Environment, Journal of Multidisciplinary Engineering Science and Technology, ISSN: 2458-9403 Volume. 4, Issue. 4, April – 2017.

30. Najeed A Khan, Shariq M Khan, Sana Jamaluddin, Urooj Iltifat, Use Hand Gesture to Write in Air Recognize with Computer Vision, , International Journal of Computer Science & Network Security, Vol.17, No.5 2017.

31. Siva Kumar Subramaniam, Shariq M. Khan, Najeed A. Khan,TCP Timeout Mechanism for Optimization of Network Fairness and Performance in Multi-Hop Pipeline Network, International Journal of Computer Science & Network Security, Vol.17, No.5 2017.

32. Siva Kumar Subramaniam, Shariq M. Khan, Najeed A. Khan, Enhancing Pipeline Network Performance Using Dual Interleaving Cluster Head Routing Protocol, International Journal of Computer Science & Network Security, Vol.17, No.4 2017.

33. Najeed K., Omer A. S., Ajmal S. M., Umer Farooq U. M., Tracking of Occluded and Cluttered Objects. International Journal of Computer Science and Information Security (IJCSIS), ISI, ISSN: 1947-5500, Vol. 14 No. 11 (Impact Factor: **0.519**). December 2016.

34. Najeed K., Saman A, Shehnila Z, Yusra A, Sehrish S.,Saba Hassan Shamim Unsupervised Cancer Detection using Computer Vision. International Journal of Computer Science and Information Security (IJCSIS), ISI, ISSN: 1947-5500, (Impact Factor: **0.519**). Volume 14, Issue 10, p- 724-732, October 2016.

35. Shehnila Z., Najeed K., Mohsin Ali Memon., Systematic Analysis of Risks in Cloud Architecture, International Journal of Computer Science and Information Security (IJCSIS), ISI, ISSN: 1947-5500, (Impact Factor: **0.519**). Vol. 14 No. 11 December 2016.

36. Najeed K., Ajmal S. M., Marium H., Arwa K., Mehak T., Real Time Monitoring Of Human Body Vital Signs Using Bluetooth & WLAN. International Journal of Advanced Computer Science and Applications, ISI. ISSN: 2156-5570 Vol.7 Issue 10, pp 210-216, October 2016.

37. Najeed K., Shehnila Z., Shabeen K., Sehrish S., A Method for Tumour Detection on Brain MRI Image by implementing SVM, International Journal of Computer Science and Information Security (IJCSIS), ISI, ISSN: 1947-5500, (Impact Factor: **0.519**). pp. 154-160 Vol. 14 No. 8 AUG 2016.

38. Shehnila Z., Najeed K., Ajmal S. M., Dealing w i t h Cloud Adoption Risks: a Goal-Oriented Requirements Negotiation Approach, International Journal of Computer Science and Information Security (IJCSIS), ISI, ISSN: 1947-5500, (Impact Factor: **0.519**). Vol. 14 No. 9, p 884-887, September 2016.

39. Ajmal S. M., Najeed K., Shehnila Z., Combining Weak DFAs to Build Strong Hypothesis Using AdaBoost Classification Algorithm, International Journal of Computer Science and Information Security (IJCSIS), ISI, ISSN: 1947-5500, (Impact Factor: **0.519**). Vol. 14 No. 9, September 2016, p. 894-899

40. Najeed K., David C. H., Unsupervised learning of Appearance classes from Video, NED University Journal of Research – Applied Sciences, (ISSN: 1023-3873), Vol. 11, No.2, 2014, pp 15-25.

41. Najeed K, Mohiuddin S. S, Baig M. M, Tawha A. M. Statistical Analysis of Constraints Acquiring Higher Secondary Education, International Journal of Database Theory and Application Vol.7, No.2 (2014), pp.141-154.

Conference Publications:

1. Rana Zeeshan Haider, Najeed Ahmed Khan. Extended CBC Channels and Machine Learning: We could many Diagnostic Tales Unfold, Trust Me! XXXVIth International Symposium on Technical Innovations in Laboratory Hematology, New Orleans, LA - New Orleans Marriott, May 11-13, 2023. https://www.islh.org/2023/program.php?page=program&displayday=1

2. Waseemullah, Najeed A Khan, Face-to-Camera distance estimation using Machine Learning, 3rd International Conference on Innovations in computer science and Software Engineering (ICONICS), IEEE Dec 14-15, 2022. NED University of Engineering & Technology Karachi Pakistan. https://ieeexplore.ieee.org/document/10100618/

3. Waseemullah, Najeed A Khan, Machine Learning approaches for the Prediction of Nutrition deficiency among women of different age group, 3rd International Conference on Innovations in computer science and Software Engineering (ICONICS), IEEE Dec 14-15, 2022. NED University of Engineering & Technology Karachi Pakistan. https://ieeexplore.ieee.org/document/10100340/
4. Maheen Ayub, Najeed A. Khan, Rana Zeeshan Haider. Wheat Crop Field and Yield Prediction using Remote Sensing and Machine Learning, 2nd International Conference on Artificial Intelligence (ICAI 2022), March 30 -31st, 2022 at the National University of Sciences and Technology (NUST), Islamabad, Pakistan. pp. 158-164, Doi: 10.1109/ICAI55435.2022.9773663
5. Umer F., Najeed A. K. Detect Anomaly in behavior of Networks using supervised and unsupervised techniques, ICCRT International Conference, December 2017.
6. Najeed A. K., Hassan P., Arsalan A., Aysha, Sania, Unsupervised Identification of Malaria Parasites using Computer Vision, IEEE-11th International Joint Conference on Computer Sciences and Software Engineering (JCSSE 2014), Thailand.
7. Najeed A. K., Hyder, H., "Identification of suspicious activities using Kalman filter", in INFORMS international Conference (June 24-28, 2006), Hong Kong.

Training Course/Seminar/Workshop Participation

- Conducted 2 day training (26-27th September 2023) on ARTIFICIAL INTELLIGENCE - HANDS ON PRACTICAL TRAINING at State Bank of Pakistan under NIBAF.
- Conducted one day training (29th May 2024) on Advance Creative Thinking & AI : Tools for Success, at State Bank of Pakistan under NIBAF.
- Arranged, 2nd 'WordCamp' Conference 24 August 2019 at NED University, Karachi in collaboration with HEC- Pakistan. https://www.thenews.com.pk/latest/516821-wordcamp-2019-evolving-the-wordpress-community-in-pakistan.
- Arranged, 1st, 2nd and 3rd International Conference on Innovations in Computer Science & Software Engineering, December 2016, 2018 and 2022 at NED University, Karachi in collaboration with HEC- Pakistan. https://www.nediconics.com/.
- Arranged, more than 10 Microsoft Boot camps at NED University, Karachi in collaboration with HEC and Microsoft- Pakistan during September 2017 – April 2018. https://csrd.neduet.edu.pk/MOS
- Arranged, 3 days Data Science Boot camp at NED University, Karachi in collaboration with HEC and Microsoft- Pakistan – April 2018.
- Arranged, 3rd MOS certification Training, 16-20 May 2016 at NED University, Karachi in collaboration with HEC and Microsoft- Pakistan.
- IT Tools for Good Governance – HEC training, 25 - 29 August 2014.
- Two-days Training Workshop on Faculty Development and Capacity Building to Promote Technology Entrepreneurship in Pakistan- 8th & 9th April 2014 @ IBA-CED Main Campus, Karachi, Sponsored by British Council.

Invited talks/speeches/Chair session:

- **Guest Speaker at Aror University of Art, Architecture, Design & Heritage,** Unlocking the Power of Artificial Intelligence: An Inspiring Session for Students and faculty.
- **Guest Speaker/ Gust of Honor:** Graduation Ceremony of CAIE O Level Batch 2023 on Saturday, September 2023.
- **Guest Speaker: State Bank of Pakistan, topic 'AI Applications in Banking Sector' 18th** Oct 2023.
- Speaker- Tackling Covid-19 using computer vision, 10 July 2020 – Online, Facebook channel NCAI.
- **Guest Speaker:** SSUET, Department of Bioinformatics on 6th June 2023, AI- its impact and future
- Speaker- Tackling Covid-19 using computer vision, 10 July 2020 – Online, Facebook channel NCAI.

- The International Conference on Information, Science & Communication Technology (ICISCT 2019).
- **Guest Speaker:** Dice Energy 2109 at Sir Syed University Karachi.

Member NED University Legislative bodies:
- Elected member Senate & Syndicate, from Feb 2003 - May 2005.
- Elected member Senate & Syndicate, from August 2005 - May 2006.
- Elected member Senate, from September 2013 - 2017.

Designed and developed.
- Development of Web 3.0 based MetaverCity for learning foreign language course – Chinese (in progress).
- Safe Sawari – Web based mobile application for community use – Under Pak British Women Workforce and Mobility Solution..
- Rapid Notifier Mobile App- Official mobile app for notifying students, faculty at NED University.
- Web portal - https://zakqada.com/ Digital platform to help peole from all over the world by Connecting Donors with Needful.
- Attendance management system–Mobile App- mobile app for NED University.
- **Embedded -** Recent AR/VR Technology Trends for NED University Curriculum.
- Designed and developed, prospectus for Master of Computer Science and Information Technology (MCIT) degree program at Department of Computer Science & Information Technology, NED University of Engineering& Technology Karachi, Pakistan, August 2005
- E-Test software, an online web based test software.
- Virtual Tour- NED University of Engineering& Technology Karachi, Pakistan.
- Software for Anti-car theft (in progress)

Supervised PhD Thesis:
1. Title: Unsupervised learning of street traffic patterns for anomaly detection. (Dec 2019)
2. Title: Unsupervised Semantic Analysis of TV Commercial Videos. (Dec 2019)
3. Title: Unsupervised identification of Fire Hazards using computer vision. (Oct 2021)
4. Title: A Universal framework for Open Source Software (OSS) Adoption. (Oct 2021)
5. Title: Intent Based User Interaction Learning Model for Seeking Information Online (2024)

The research has been published in National newspapers. https://www.express.pk/story/1906509/1 and https://tribune.com.pk/story/2113210/1-historic-feat-ned-award-doctorates-13-candidates-   todaykarachi-city/?amp=1.

Supervising PhD Thesis (in Progress).
1. Title: Emotion Recognition from Facial Expression using Machine Learning

Master Dissertation Completed):
1. Dissertation Master by research (9- credited hours)
   Title: Automated Classification of histological slides Based on Identification of Tumor Cells, year 2013, Student Name: Yusra Adnan.

Master level -Independent Study projects (ISP): (6- credited hours)
- More than 50 MS, Independent Study Projects (ISP) have been supervised to date.

Grants received/ Funded Projects:

Project Title	Donor	Amount PKR (M)	Team Members
National Centre for Artificial Intelligence (NCAI) 2018 - 2021	HEC- Pakistan	**180 Million**	**(CO-PI)**-Smart City Lab. Dr. Najeed Ahmed Khan
Web 3.0 based MetaverCity Digital Classroom – Learn foreign language	MoST Endowment Fund	**2.07 Million**	**PI- Dr. Najeed Ahmed Khan**
Women Workforce and Mobility Solution"	British Asian Trust, Pakistan	**1.8 Million**	**PI- Prof. Dr. Noman Ahmed Co-PI: Dr Saeed Uddin, Dr. Najeed Ahmed Khan**
Development of IoT enabled Safety monitoring system for construction worksites in Pakistan	MoST Endowment Fund /NED Research fund - November 2022	**01 Million**	**PI- Prof. Dr. Rizwan Farooqui Co-PI: Prof. Dr. Najeed Ahmed Khan**
Real time crowed counting Covid -19 SoPs detection system- FYP	IGNITE NGIRI – July 2021	**0.08 Million**	Dr. Najeed Ahmed Khan (PI)- **Completed**
Machine Learning based model for early screening Cancer using CBC	IGNITE NGIRI – July 2021	**0.08 Million**	Dr. Najeed Ahmed Khan (PI)- **Completed**
PhD Thesis: Emotion Recognition from facial expression using machine learning	MoST Endowment Fund /NED Research fund - August 2020	**4 Million**	Dr. Najeed Ahmed Khan (In Progress)
PhD Thesis Intent based User Interaction Learning Model for online Image search	MoST Endowment Fund /NED Research fund - August 2020	**3.9 Million**	Dr. Najeed Ahmed Khan (In Progress)
Kaam Asan- Final year Project	NED Alumni Association of Southern California (NEDAASC)- June- 2020	**0.09 Million**	Dr. Najeed Ahmed Khan (PI)- **Completed**
Video surveillance-based traffic management system- FYP	IGNITE NGIRI – August 2020	**0.07 Million**	Dr. Najeed Ahmed Khan (PI)- **Completed**
Expert Planner - FYP	IGNITE NGIRI- August 2020	**0.035 Million**	Dr. Najeed Ahmed Khan (PI)
Applications in Engineering using Augmented Reality FYP	IGNITE NGIRI 2019	**0.070 Million**	**PI-** Dr. Najeed Ahmed Khan- (**Completed**)
Augmented and Virtual Reality in education FYP-2019	IGNITE NGIRI 2019	**0.070 Million**	**PI-** Dr. Najeed Ahmed Khan- (**Completed**)
Disaster Management System (DIMS). Review & formulate report for development of (DIMS) for Pak.	National ICT R&D, Ministry of Information Technology, Pakistan	**4 Million**	Prof. Sarosh H. Lodi, Prof Dr. Masood Rafi, Dr. Najeed Ahmed Khan
E-Conference Table	National ICT R&D, Ministry of Information Technology, Pakistan	**0.074 Million**	Dr. Najeed Ahmed Khan (PI) (**Completed**)
Evaluation project: Procurement performance management systems	Reform Support Unit, Edu. & Literacy Deptt. Govt. of Sindh under the World Bank	**0.175 Million**	Dr. Najeed Ahmed Khan (**Completed**)
PhD Thesis Unsupervised learning of street traffic patterns for anomaly detection.	MoST Endowment Fund /NED Research fund- 2017	**4.0 Million**	Dr. Najeed Ahmed Khan (**Completed**)
PhD Thesis Unsupervised Semantic Analysis of TV Commercial Videos.	MoST Endowment Fund /NED Research fund- 2017	**4.0 Million**	Dr. Najeed Ahmed Khan (**Completed**)
PhD Thesis Design a framework for universal open source software adoption model	MoST Endowment Fund /NED Research fund-2018	**3.1 Million**	Dr. Najeed Ahmed Khan (**Completed**)
PhD Thesis Unsupervised identification of fire intensity and its hazards using computer vision	MoST Endowment Fund / NED Research fund -2018	**4.0 Million**	Dr. Najeed Ahmed Khan (**Completed**)