

Dr. Ubaida Fatima

Biomedical Engineer
MS (Applied Mathematics)
Ph.D. (Applied Mathematics)

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OBJECTIVE:

To seek a challenging responsible position in an institution where hard work and dedication are appreciated and rewarded by training and professional growth.

EDUCATION:

- **PhD (2020) Applied Mathematics**
3.27 CGPA
NED University of Engineering and Technology, Karachi. Pakistan
- **MS (2014) Applied Mathematics**
3.93 CGPA
Done thesis work on Modification of Google Fuzzy PageRank Algorithm. An Application of Computational Linear Algebra
NED University of Engineering and Technology, Karachi. Pakistan
- **BE (2011) Biomedical Engineering.**
(1st Division)
NED University of Engineering and Technology, Karachi. Pakistan
- **Intermediate (2006)**
A Grade (73.8%)
DHA Degree College for Women.
Board of Intermediate Education, Karachi.
- **Matriculation (2004)**
A-one Grade (82.3%)
Happy Home Secondary School.
Board of Secondary Education, Karachi.

COMPUTER SKILLS:

- **Programming languages:** C++, BASIC.
- **Software:** RStudio, MATLAB, MINITAB, AUTO CAD 2010, MULTISIM KEIL UVISION 3, SPSS, Gambit, Fluent, Microsoft Excel, Word, Microsoft Power point and Microsoft Project, Python.

WORK EXPERIENCE:

- Working on the post of Assistant Professor at Department of Mathematics, NED University of Engineering and Technology Karachi since March 2021-Present.
- Taught MS (Applied Mathematics) courses that are Fuzzy logic and sets, Advanced Engineering Mathematics and Finite Element Analysis.
- Teaching PhD courses at Sindh Madrassa-tul-Islam University since September 2020-Present like Mathematics for Artificial Intelligence and Mathematics in Health Care.
- Worked as Cooperative Teacher on Contract at Department of Mathematics, NED University of Engineering and Technology Karachi since July 2015- February 2021
- Worked as visiting faculty at UBIT, University of Karachi from 2014-2017.
- Conducted Software Engineering and Project Management Lab of BSSE as a visiting Faculty in Department of Computer Science, University of Karachi in 2015 Fall semester.
- Conducted Numerical Computing and Operations Research lab of BSCS and MCS as a visiting Faculty in Department of Computer Science, University of Karachi in 2014-2015.
- Four weeks internship in Liaquat National Hospital Karachi in 2009.
 - **Focused on:** X-Ray Units, Fluoroscopy Units, MRI and CT-Scan Units, Nuclear medicine and Gamma Cameras, ICU Ventilators and Bio-Medical Workshop.
- Four weeks internship in Jaffrey Medical Co-operation in 2010.
 - **Focused on:** Biomedical Instrumentation Workshop (Dialysis machine, X-ray tube, Patient monitors and soldering)
- Five months training in DOW INTERNATIONAL OJHA CAMPUS (DOW UNIVERSITY OF HEALTH SCIENCES KARACHI) in 2011.
 - **Focused on:** Biomedical Machines at: Hematology Department, Radiology Department, Bio-Chemistry Department, Ophthalmology Department, ICU and Neonatal Care Units and the Bio-Medical Instrumentation Workshop.

RESEARCH PAPER AND PUBLICATIONS:

1. Engr. Abdul Moiz, Dr. Ubaida Fatima, Dr. M Zeeshan-UI-Haque, “A novel fuzzy membership function for evaluating edge strength in fuzzy biological networks and identifying crucial proteins using fuzzy centralities”, submitted to JCR journal. (Under Review).
2. Ubaida Fatima, Saman Hina, Muhammad Wasif, “A novel global clustering coefficient-dependent degree centrality (GCCDC) metric for large network analysis using real-world datasets”, Journal of Computational Science, Volume 70, 2023, 102008, ISSN 1877-7503, <https://doi.org/10.1016/j.jocs.2023.102008>. (W- category)
3. Naz, Samia & Hina, Saman & Fatima, Ubaida & Tabassum, Huma. (2023). A Hybrid Approach to Measure Students' Satisfaction on YouTube Educational Videos. International Journal of Emerging Technologies in Learning (IJET). 18. 131-147. 10.3991/ijet.v18i09.38473.
4. Ubaida Fatima and Dr. Saman Hina, “Efficient Algorithm for Maximal Clique Size Evaluation”, published in International Journal of Advanced Computer Science and Applications (IJACSA), August 2019.
5. Fatima Sughra Zaidi, Ubaida Fatima, Bilal Ahmed Usmani and Ali Raza Jafri, “Comprehending Nodes Essentiality through Centrality Measures in Biological

Networks”, published in IJCSNS International Journal of Computer Science and Network Security, VOL.19 No.9, September 2019

6. Dr. Tahseen Ahmed Jilani, Ubaida Fatima, Prof. Dr. Mirza Mahmood Baig, “*A Survey and Comparative Study of Different PageRank Algorithms*” published in International Journal of Computer Applications (IJCA).
7. Dr. Tahseen Ahmed Jilani, Ubaida Fatima, Prof. Dr. Mirza Mahmood Baig, “*Fuzz-PageRanking for Google Search Engine*” published in International Journal of Computer Science Issues (IJCSI).
8. Dr. Tahseen Ahmed Jilani, Shaista Rais, Ubaida Fatima, Dr. Shabnam Rais, “*Bayesian Networks Approach to Diagnose Diabetes Type-2 In Pakistan*” published in International Journal of Science and Research (IJSR).
9. Faiza Khan, Madiha Fatima, Usman Tariq Alvi, Dr. Tahseen Jilani and Ubaida Fatima, “*Comparative Study of Similarity Measures in Link Prediction Using Facebook Data*” submitted to International Journal of Computer Science and Information Security (IJCSIS).

RESEARCH SUPERVISION:

Done thesis supervision of MS (Applied Mathematics) seven students on different domain of applied mathematics as a supervisor and two as co-supervisor.

PROJECTS:

- Hearing Aid.
- Variable Power Supply.
- Bio statistical survey on accidents in Pakistan.
- **Final Year Project:** Estimating risk factors of mortality rate due to cardiovascular diseases in patients using Minitab, MS Excel and modeling through MATLAB.

PERSONAL INFORMATION:

Father’s Name: Muhammad Abdullah Makki (Late)

Date of birth: April 15, 1989.

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REFERENCES:

1. Prof. Dr. Ali Raza Jafri
Chairman (Department of Automotive and Marine Engineering)
NED University of Engineering and Technology
Email: arj@neduet.edu.pk
Contact No: 021-99230602
2. Dr. Bilal Ahmed Usmani
Assistant Professor (Department of Biomedical Engineering)
NED University of Engineering and Technology
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