

**ACADEMIC
CURRICULUM VITAE**

1. Name - Surname: Behnaz Shirgir

2. Current Position and Department:

Ph.D Candidate in Biomedical Engineering

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6. Educational Background:

Degree	Department /Program	University Name	Year
Bachelor	Biomedical Engineering / Bioelectric	Islamic Azad University of Ahar	2012 - 2015
Master	Biomedical Engineering / Bioelectric	Islamic Azad University of Tabriz	2016 - 2019
PhD	Biomedical Engineering	Near East University	2023 - Present

7. Master's / PhD Thesis:

7.1 Master's Thesis Title:

Modeling differential gene expression using a negative binomial distribution in order to analysis Prostate cancer characteristic (2019)

7.2. PhD Thesis /Medical Specialty Thesis Title :

Innovative point of care biosensors targeting SMAD3 for early detection of Alzheimer's disease (Present)

8. Academic Appointment: Physics labratory assistant , Common Courses , Physics Department, Near East University (2023 – Present)

Supporting undergraduate students during lab sessions and assisting in equipment maintenance.

9. Research Interests:

Artificial Intelligence, Neuroscience, Medical Physics, Biosensors , Gene Editing, CRISPR

10. Courses Taught:

Neural Computing , Bachelor students of Artificial Intelligence Engineering, (Spring 2024)

Foundantion Physic 101 , (Spring 2025)

Physics 101 and Physics 102 Labratory courses (2023 – Present)

All courses were taught using the Flipped Learning platform to enhance student engagement and interactive learning.

11. Languages and Skills:

11.1. Languages:

- Turkish (Native)
- Persian (Native)
- English (Fluent)

11.2. Skills:

11.2.1 Software : Python , Matlab

11.2.2. Microsoft Office (Word , Excel , Powerpoint)

11.2.3. Technical : Medical device maintenance and circuit board repair

12. Awards and Honors:

First Place , Research Project Competition – Teknofest 2025, Team member in project on portable biosensors for real time Heavy metal detection.

Tuition Scholarship , Near East University , 45%.

Throughout all educational levels recieved multiple certificates of appreciation from school and university for high GPA and outstanding academic performance.

13. Publications:

1. Farrokhi, M., Abbasmofrad, H., Karami, M., Boustani Hezarani, H., Alemohammad, S. S., Atighi, J., Alipoor, P., Savardashtaki, M., Naghipoor-Alamdari, M., Shafiei, F., Naderi, D., Fakharzadeh Moghadam, O., Shirgir, B., Masoumzadeh, M., Sepahdar, A., Tajik, Z., Mohammadpour, M., Zargar, A., Paeizi, B., Esfandyari, F., Sabzehie, H., Ghazali, M., Mohammadi, A., Sargazi, M., Judi Chelan, R., Sabahizadeh, A., Bahador, A., Salehabadi, N., Amiri Marbini, S., Abdollahpour, S., Farzan, P., & Harati, K. (2026). AI for Self-Diagnosis, Self-Monitoring, and Personalized Medicine. Kindle, 6(1), 1–226. Retrieved from <https://preferpub.org/index.php/kindle/article/view/Book65>

2. Shirgir, B., Dimililer, K., Asir, S. (2025). Applications of Artificial Intelligence in Biosensors. In: Pal, S.K., Thampi, S.M., Abraham, A. (eds) Intelligent Informatics. ISI 2023. Smart Innovation, Systems and Technologies, vol 389. Springer, Singapore. https://doi.org/10.1007/978-981-97-2147-4_21.

3. Shirgir, B., Aşır, S., Asıksoy, G., Dimililer, K. (2025). Integration of Artificial Intelligence with Environmental Biosensors. In: Gökçekuş, H., Kassem, Y. (eds) Climate Change and Natural Resources. NRSEM 2023. Environmental Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-031-72479-4_35.

4. Shirgir, B. (2022). Modeling differential gene expression using the negative binomial distribution to analyze behavioral features in prostate cancer. 7th International Conference on Research in Science and Engineering and the 4th International Congress on Civil, Architecture, and Urban Development of Asia. Retrieved from <https://civilica.com/doc/1640593>.

5. Shirgir, B. (2021). Diagnosis of breast cancer with artificial intelligence. 10th International Conference on Innovation and Research in Engineering Sciences. [https://civilica.com/paper/CIRES10-014\(COI:ICIRES10-014\)](https://civilica.com/paper/CIRES10-014(COI:ICIRES10-014)).