

Khalid Raza, PhD

Associate Professor

Department of Computer Science

Jamia Millia Islamia (Central University)

New Delhi-110025, India

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Scopus | ResearcherID | Scholar



Scientometric Indicators

- Google Scholar: Citations: 3451, H-index: 32, i10-index: 85
- Scopus: Citations: 2150, H-index: 24, i10-index: 58

Publications

- WoS/Scopus Indexed Publications (Total): 150
- SCI/SCIE/Scopus Journals: 85 (Mostly Q1 & Q2 Journals)
- Scopus Indexed Proceedings/Chapters: 65
- Authored/Edited Books: 14 [Springer (8), Elsevier (4), CRC (1), Others (1)]

Patent (IPR)

- Granted: 01 (German) | Filed: 02 (Indian)

Funded Research Projects

- Ongoing: 03 (BRICS Multilateral; ICMR, India; ANRF, India) | Completed: 02 (UGC, JMI)

PhD Thesis Guidance

- Awarded: 07 | Submitted: Nil | Ongoing: 02

Editorial Activities

- Academic Editor, PLoS ONE 2024 – till date
- Guest Editor, npj Precision Oncology 2024 – till date
- Guest Editor, Natural Product Communications 2024 – till date
- Guest Editor, JoVE (Journal of Visual Experiments) 2024 – till date
- Editorial Board Member, BMC Artificial Intelligence 2024 – till date
- Academic Editor, PeerJ Computer Science 2021 – 2024
- Guest Editor, Mini-Reviews in Med. Chem. 2024 – 2024

Honors, Awards & Recognitions

- Recognized among the World's Top 2% Scientists for three consecutive years (2021-2023) by Stanford University.
- Honorary Research Fellow, INTI International University, Malaysia
- ICCR Chair Professor at Ain Shams University, Cairo, Egypt (2017-18)
- Indian Academy of Sciences Summer Research Fellowship (May– June, 2012)

Invited Talks, Seminars, Presentations (Total=38)

- Invited Talks: 32 | Seminars: 03 | Paper Presentation: 11

Research Interests

- AI & Machine Learning | Image Processing | Computational Biology & Bioinformatics

Academic & Administrative Roles

- Associate Professor December 2022 – till date
- Assistant Professor December 2010 – December 2022
- Hony. Deputy Director (MMTTC, JMI) June 2024 – till date
- Hony. Asstt. Controller of Examination January 2025 - till date
- Warden (Boy's Hostel) 2023-24, 2022-23, 2018-19, 2016-17

Detailed Curriculum Vitae**Dr. Khalid Raza***Associate Professor*, Department of Computer Science*Deputy Director*, [MMTTC \(Formerly UGC-HRDC\)](#)**JAMIA MILLIA ISLAMIA** (CENTRAL UNIVERSITY)

Jamia Nagar, New Delhi-110 025, INDIA

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Email: [kraza.jmi\[at\]gmail.com](mailto:kraza.jmi[at]gmail.com) | [kraza\[at\]jmi.ac.in](mailto:kraza[at]jmi.ac.in)Home Page: <http://www.kraza.in/>Recognized as one of the **World's Top 2% Scientists** (single-year entry) for three consecutive years 2021, 2022 & 2023 released by Stanford University, USA.

RESEARCHERID

Google
scholar

Citations: 3451

H-Index: 32

i10-Index: 85

Total Publications:

150**CAREER OBJECTIVES**

Passionate about advancing AI, Computational Biology, and Bioinformatics through innovative and interdisciplinary research, impactful education – committed to addressing real-world challenges and driving global scientific progress.

ACADEMIC PROFILES

- *Associate Professor* at the **Department of Computer Science, Jamia Millia Islamia (Central University)**, New Delhi, India. (15-12-2022 to till date).
- *Assistant Professor* at the **Department of Computer Science, Jamia Millia Islamia (Central University)**, New Delhi, India. (03-12-2010 to 14-12-2022).
- *ICCR Chair Visiting Professor* at [Faculty of Computer and Information Sciences, Ain Shams University](#), Cairo, Egypt for two semesters (2017-2018). Selected and deputed by ICCR, Ministry of External Affairs, Government of India.

ADMINISTRATIVE PROFILES

- *Hony. Deputy Director*, Malaviya Mission Teacher Training Centre (Formerly, UGC-HRDC), Jamia Millia Islamia (June 2024 to till date)
- *Hony. Assistant Controller of Examination*, Jamia Millia Islamia (Jan 2025 to till date)
- *Hostel Warden (Mess)*, Zakir Hussain Hall of Boys' Residence, JMI (2016-2017, 2018-2019, 2022-2023, 2023-2024)

PROFESSIONAL & ACADEMIC QUALIFICATIONS

- **Ph.D. (Computer Science)** from Department of Computer Science, Jamia Millia Islamia, New Delhi (**Awarded in December 2014**).
Title: "Soft Computing Approach for Modeling Biological Networks"
- **MCA (Master of Computer Applications)** from IGNOU, New Delhi.
- **BCA (Bachelor of Computer Application)** from Magadh University, Bodhgaya.

UGC NATIONAL ELIGIBILITY TEST (NET) & JUNIOR RESEARCH FELLOW (JRF)

- Qualified **National Eligibility Test (NET)** and **Junior Research Fellow (JRF)** in Computer Science & Application conducted by the University Grants Commission in December 2009.

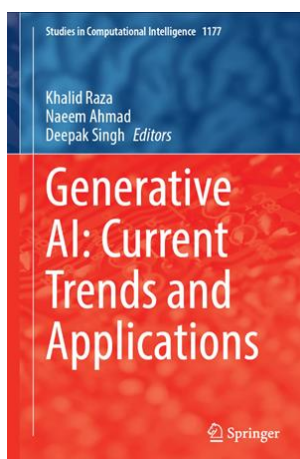
RESEARCH INTEREST

- Computational Intelligence & Applications
- Computational Biology & Bioinformatics

RESEARCH PUBLICATIONS (WoS/ PubMed/Scopus Indexed)

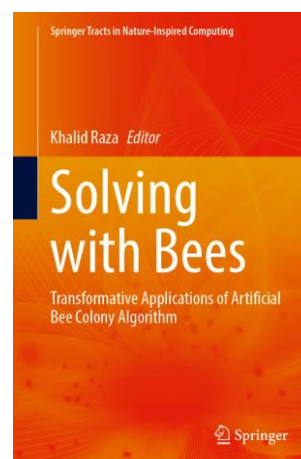
Books Edited/Authoried (14)

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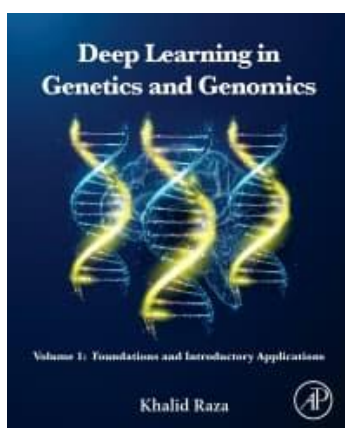
Raza, K., Ahmad, N. & Singh, D. (Eds.) **Generative AI: Current Trends and Applications** *Studies in Computational Intelligence*, 1177, 2024, **Springer**. ISBN 978-981-97-8462-2

[13]

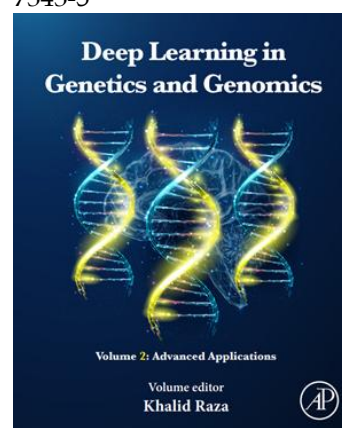


Raza, K. (Ed.), **Solving with Bees: Transformative Applications of Artificial Bee Colony Algorithm**, *Springer Tracts in Nature-Inspired Computing*, **Springer**, ISBN 978-981-97-7343-5

[12]

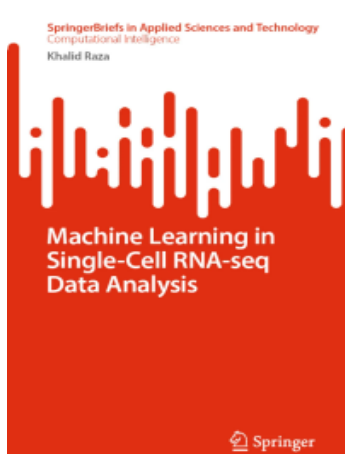


Raza, K. (Ed.) **Deep Learning in Genetics and Genomics, vol. 1 (Foundations and Introductory Applications)**, **Elsevier**, ISBN 9780443275746



Raza, K. (Ed.) **Deep Learning in Genetics and Genomics, vol. 2 (Advanced Applications)** **Elsevier**, ISBN 9780443275234

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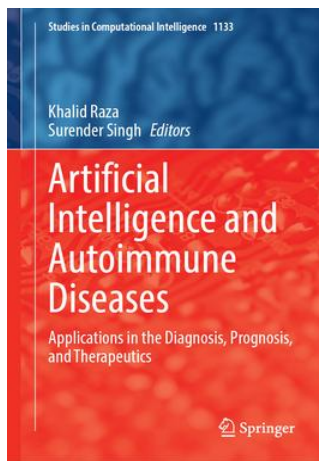
Raza, K. **Machine Learning in Single-Cell RNA-seq Data Analysis**, *SpringerBriefs in Computational Intelligence*, **Springer**. ISBN 978-981-97-6702-1

[9]



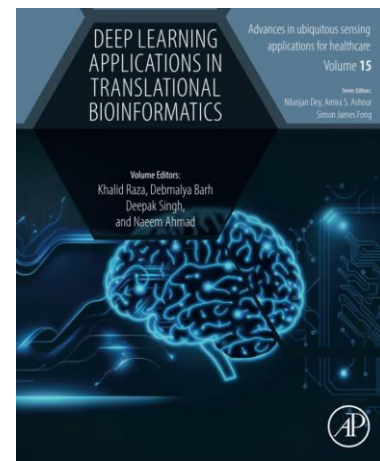
Raza, K. (Ed.) **Von der Natur inspirierte intelligente Datenverarbeitungstechniken in der Bioinformatik (German Edition)** **Springer**. 2024. ISBN 9789819978076

[8]



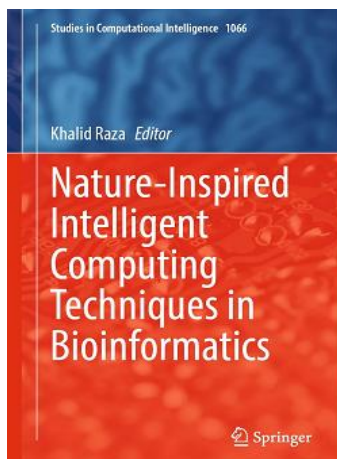
Raza, K. & Singh, S. (Eds.) **Artificial Intelligence and Autoimmune Diseases: Applications in the Diagnosis, Prognosis, and Therapeutics** *Studies in Computational Intelligence*, 1133, 2024 **Springer**. ISBN 978-981-99-9028-3

[7]



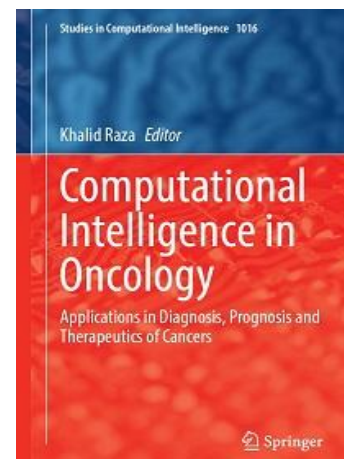
Raza, K., Barh, D., Singh, D., Ahmad, N. (Eds) **Deep Learning Applications in Translational Bioinformatics**. *Advances in Ubiquitous Sensing Application for Healthcare*, vol. 15, 2024, **Elsevier**, ISBN 9780443222993

[6]



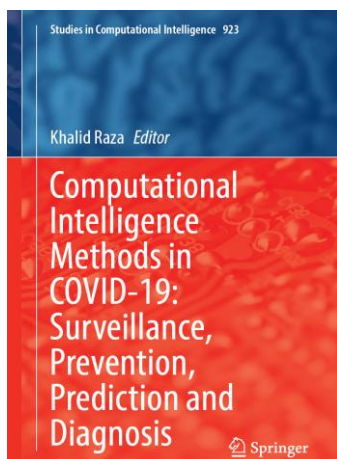
Raza, K. (Ed.) **Nature-Inspired Intelligent Computing Techniques in Bioinformatics**. *Studies in Computational Intelligence*, 1066, 2023, **Springer**. ISBN 978-981-19-6378-0.

[5]



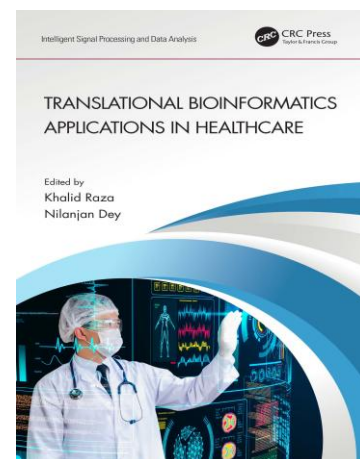
Raza, K. (Ed.) **Computational Intelligence in Oncology: Applications in Diagnosis, Prognosis and Therapeutics of Cancers**, *Studies in Computational Intelligence*, 1016, 2022, **Springer**. ISBN 978-981-16-9220-8.

[4]



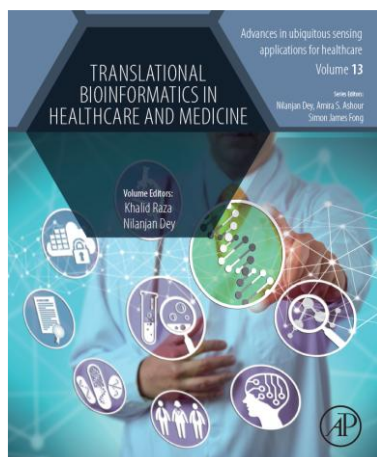
Raza, K. (Ed.) **Computational Intelligence Methods in COVID-19: Surveillance, Prevention, Prediction and Diagnosis**. *Studies in Computational Intelligence*, 923, 2020, **Springer**. ISBN 978-981-15-8533-3.

[3]



Raza, K., and Dey, N. (Eds). **Translational Bioinformatics Applications in Healthcare**. *CRC FOCUS*, 2021, **CRC Press** ISBN 978-0-367-70570-1

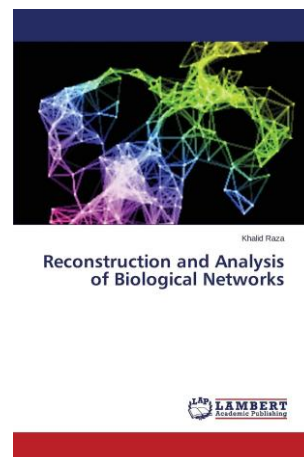
[2]



Raza, K., and Dey, N. (Eds).
Translational Bioinformatics in Healthcare and Medicine.

Advances in Ubiquitous Sensing Application for Healthcare, Vol. 13, 2021, Elsevier, ISBN 978-0-323-89824-9

[1]



Raza, K.
Reconstruction and Analysis of Biological Networks.

LAP Lambert Academic Publishing, Germany (2015). ISBN: 978-3-659-77380-8.

Journals (85)

- [85] Bano, N., Ahmad, S., Gupta, D. & Raza, K. (2025). FDA-Approved Levophed as an Alternative Multitargeted Therapeutic Against Cervical Cancer Transferase, Cell Cycle, and Regulatory Proteins. *Computers in Biology and Medicine, Elsevier* (In Press). <https://doi.org/10.1016/j.compbiomed.2025.110163> (IF 3.8)
- [84] Pan, Y., Gangwar, S., Abbas, M. & Raza, K. (2025). Traditional Chinese Medicine-based Therapeutics for Pediatric Pneumonia-Related Acute Lung Injury and Acute Respiratory Distress Syndrome. *Scientific Reports, Nature*, 15, 11708. <https://doi.org/10.1038/s41598-025-94305-6> (IF 3.8)
- [83] Ahmad, S., Bano, N. & Raza, K. (2025). Evaluating the polypharmacological potency of FEDPN from ChEMBL BioAssays against lung cancer EGFR, ALK, TrkA and KRAS proteins. *International Journal of Biological Macromolecules, Elsevier*, 306(Part 3): 141703. <https://doi.org/10.1016/j.ijbiomac.2025.141703> (IF 7.7)
- [82] Ahmad, S., Bano, N. & Raza, K. (2025). RCSB Protein Data Bank: revolutionising drug discovery and design for over five decades. *Medical Data Mining*, 8(2):8. <https://doi.org/10.53388/MDM202508003>
- [81] Singh, A.K, Ahmad, S., Roy, A., Raza, K. & Gautam, H.K. (2025). Investigating the Inhibitory Effects of Paliperidone on RAGEs: Docking, DFT, MD Simulations, MMPBSA, MTT, Apoptosis, and Immunoblotting Studies. *International Journal of Molecular Sciences*, 26(3), 1060. <https://doi.org/10.3390/ijms26031060> (IF 4.9)
- [80] Zhang, J., Gangwar, S, Bano, N., Ahmad, S., Alqahtani, M.S. & Raza, K. (2025). Probing the role of Coniferin and Tetrahydrocurcumin from Traditional Chinese Medicine against PSAT1 in Early-Stage Ovarian Cancer: An *in silico* study. *PLoS ONE*, 20(2): e0313585. <https://doi.org/10.1371/journal.pone.0313585> (IF 3.5)
- [79] Alymani, M., Almoqhem, L.A., Alabdulwahab, D.A., Alghamdi, A.A., Alshahrani, H. & Raza, K. (2025). Enabling smart parking for smart cities using IoT and machine learning. *PeerJ Computer Science*, 11:e2544. <https://doi.org/10.7717/peerj-cs.2544> (IF 3.5)
- [78] Bano, N., Mohammed, S.A., & Raza, K. (2024). Integrating Machine Learning and Multitargeted Drug Design to Combat Antimicrobial Resistance: A Systematic Review. *Journal of Drug Targeting, T&F.*, 33(3), 384–396. <https://doi.org/10.1080/1061186X.2024.2428984> (IF 4.3)
- [77] Singh, N., Kumar, P., Ahmad, S., Gupta, J., Raza, K., Hashmi, A.A. (2025). Synthesis, structural elucidation, and antibacterial activities of novel copper(II), cobalt(II), and nickel(II) complexes

- with a bidentate Schiff base ligand against pathogenic bacteria. *Journal of Molecular Structure, Elsevier*, 1321 (Part 2): 139874. <https://doi.org/10.1016/j.molstruc.2024.139874> (IF 4.0)
- [76] Ahmad, N., Singh, S., AlAjmi, M.F., Hussain, A., and Raza, K. (2024). CropGCNN: color space-based crop disease classification using group convolutional neural network. *PeerJ Computer Science* 10:e2136. <https://doi.org/10.7717/peerj-cs.2136> (IF 3.5)
- [75] Ahmad, S., Bano, N., Khanna, K., Gupta, D. & Raza, K. (2024). Reporting multitargeted potency of Tiaprofenic acid against lung cancer: Molecular fingerprinting, MD simulation, and MTT-based cell viability assay studies. *International Journal of Biological Macromolecules, Elsevier*, 276 (Part 1): 133872. <https://doi.org/10.1016/j.ijbiomac.2024.133872> (IF 7.7)
- [74] Faloye, K., Ahmad, S., Oyasowo, O., Shalom, E., Bano, N., Olanudun, E., Kelani, T., Aliyu, H., Raza, K., Makinde, B. & Alanzi, A. (2024). Deciphering the influenza neuraminidase inhibitory potential of naturally occurring biflavonoids: An in silico approach. *Open Chemistry, Du Gruyter*, 22: 20240053. <https://doi.org/10.1515/chem-2024-0053> (IF 2.2)
- [73] Ahmad, S., Singh, A.P., Bano, N., Raza, K., Singh, J., Medigeshi, G.R., Pandey, R., Gautam, H.K. (2024). Integrative analysis discovers Imidurea as dual multitargeted inhibitor of CD69, CD40, SHP2, lysozyme, GATA3, cCBL, and S-cysteine from SARS-CoV-2 and M. tuberculosis. *International Journal of Biological Macromolecules, Elsevier*, 270 (Part 2): 132332. <https://doi.org/10.1016/j.ijbiomac.2024.132332> (IF 7.7)
- [72] Noori, R., Bano, N., Ahmad, S., Mirza, K., Mazumder, J.A., Perwez, M., Raza, K., Manzoor, N. & Sardar, M. (2024). Microbial Biofilm Inhibition Using Magnetic Cross-Linked Polyphenol Oxidase Aggregates. *ACS Applied Bio Materials*, 7(5), 3164–3178. <https://doi.org/10.1021/acsabm.4c00175> (IF 4.7)
- [71] Ahmad, S. & Raza, K. (2024). An Extensive Review on Lung Cancer Therapeutics Using Machine Learning Techniques: State-of-the-art and Perspectives. *Journal of Drug Targeting, T&F.*, 32(6), 635–646. <https://doi.org/10.1080/1061186X.2024.2347358> (IF 4.3)
- [70] Sonia, D., Anjum, Z., Raza, K., & Verma, S. (2024). A Review on Picrosides Targeting NFκB and its Proteins for Treatment of Breast Cancer. *Molecular and Cellular Biochemistry, Springer*. <https://doi.org/10.1007/s12013-024-01281-1> (IF 4.3)
- [69] Rana, M., Ahmedi, S., Mehendi, R., Ahmad, S., Fatima, T., Raza, K., & Manzoor, N. (2024). 2-hydrazinobenzothiazole based derivatives: Synthesis, characterization, antifungal, DNA binding and molecular modelling approaches. *Journal of Molecular Structure, Elsevier*, 32(6), 635–646. <https://doi.org/10.1016/j.molstruc.2024.138051> (IF 3.8)
- [68] Famuyiwa, S.O., Ahmad, S., Olufolabo, O.K., Olanudun, E.A., Bano, N., Oguntimehin, S.A., Adesida, S.A., Oyelekan, E.I., Raza, K., Faloye, K.O. (2023). Investigating the multitargeted anti-diabetic potential of cucurbitane-type triterpenoid from Momordica charantia: An LC-MS, docking-based MM\GBSA and MD Simulation Study. *Journal of Biomolecular Structure & Dynamics, T&F*. <https://doi.org/10.1080/07391102.2023.2291174> (IF 5.235)
- [67] Sahu, A., Ahmad, S., Imtiyaz, K., Kumaran, A.K., Islam, M., Raza, K., Easwaran, M., Kunnath, A.K., Rizvi, M.A., & Verma, S. (2023). In-silico and in-vitro study reveals ziprasidone as a potential aromatase inhibitor against breast carcinoma. *Scientific Reports, Nature*, 13, 16545. <https://doi.org/10.1038/s41598-023-43789-1> (IF 4.6)
- [66] Rana, M., Hungyo, H., Parashar, P., Ahmad, S., Mehendi, R., Tandon, V., Raza, K., Assiri, M.A., Ali, T.E., El-Bahyf, Z.M., & Rahisuddin (2023). Design, synthesis, X-ray crystal structures, anticancer, DNA binding, and molecular modelling studies of pyrazole-pyrazoline hybrid derivatives. *RSC Advances*, 13, 26766–26779. <https://doi.org/10.1039/D3RA04873J> (IF 3.9)
- [65] Bhati, R., Nigam, A., Ahmad, S., Raza, K., Singh, R. (2023). Structural-functional analysis and Molecular characterization of arsenate reductase from Enterobacter cloacae RSC3 for arsenic biotransformation. *3 Biotech, Springer*, 13: 305. <https://doi.org/10.1080/07391102.2023.2242950> (IF 2.8)
- [64] Singh, A.K., Ahmad, S., Raza, K., Gautam, H.K. (2023). Computational screening and MM\GBSA-based MD simulation studies reveal the high binding potential of FDA-approved drugs against

- Cutibacterium acnes Sialidase.** *Journal of Biomolecular Structure & Dynamics*, **T&F**, 42(12), 6245–6255. <https://doi.org/10.1080/07391102.2023.2242950> (IF 5.235)
- [63] Sahu, A., Pradhan, D., Veer, B., Kumar, S., Singh, R., **Raza, K.**, Rizvi, M.A., Jain, A.K., & Varma, S. (2023). **In silico screening, synthesis, characterization and biological evaluation of novel anticancer agents as potential COX-2 inhibitors.** *DARU Journal of Pharmaceutical Sciences*, **Springer**, 31, 119–133. <https://doi.org/10.1007/s40199-023-00467-x> (IF 4.088)
- [62] Mateev, E., Georgieva, M., Mateeva, A., Zlatkov, A., Ahmad, S., **Raza, K.**, Azevedo, V., & Barh, D. (2023). **Structure-based design of novel MAO-B inhibitors: A review.** *Molecules*, **MDPI**, 28(12), 4814. <https://doi.org/10.3390/molecules28124814> (IF 4.6)
- [61] Zhang, R., Akhtar, N., Wani, A.K., **Raza, K.** & Kaushik, V. (2023). **Discovering deleterious Single Nucleotide Polymorphisms of human AKT1 oncogene: An in silico study.** *Life*, **MDPI**, 13(7), 1532. <https://doi.org/10.3390/life13071532> (IF 3.253)
- [60] Satyam, R., Ahmad, S. & **Raza, K.** (2023). **Comparative genomic assessment of members of Genus Tenacibaculum: An exploratory study.** *Molecular Genetics and Genomics*, **Springer**, 298, 979–993. <https://doi.org/10.1007/s00438-023-02031-3> (IF 3.1)
- [59] Rana, M., Ahmedi, S., Fatima, A., Ahmad, S., Nouman, Siddiqui, N., **Raza, K.**, Manzoor, N., Javed, S. & Rahisuddin (2023). **Synthesis, Single crystal, TD-DFT, Molecular Dynamics Simulation and DNA binding studies of Carbothioamide Analog.** *Journal of Molecular Structure*, **Elsevier**, 1287,135701. <https://doi.org/10.1016/j.molstruc.2023.135701> (IF 3.841)
- [58] Ahmad, S., Singh, V., Gautam, H., & Raza, K. (2023). **Multisampling-based docking reveals Imidazolidinyl urea as a multitargeted inhibitor for Lung Cancer: An optimisation followed multi-simulation and In-vitro study.** *Journal of Biomolecular Structure & Dynamics*, **T&F**, 42(5): 2494-2511. <https://doi.org/10.1080/07391102.2023.2209673> (IF 5.235)
- [57] Ahmad, S. & Raza, K. (2023). **Identification of 5-Nitroindazole as a multitargeted inhibitor for CDK and 1 transferase kinase in Lung Cancer: A Multisampling algorithm-based structural study.** *Molecular Diversity*, **Springer**. <https://doi.org/10.1007/s11030-023-10648-0> (IF 3.364)
- [56] Sahu, A., Raza, K., Pradhan, D., Jain, A.K., Verma, S. (2023). **COX-2 as a therapeutic target against human breast cancer: A comprehensive review.** *WIREs Mechanisms of Disease*, e1596. <https://doi.org/10.1002/wsbm.1596> (IF 7.288)
- [55] Yang, L., Bhat, A.M., Qazi, S. & **Raza, K.** (2023). **DLC1 as druggable target for specific subsets of gastric cancer: An RNA-seq based study.** *Medicina*, 59(3): 514. <https://doi.org/10.3390/medicina59030514> (IF 2.948)
- [54] Shah, A.A., Ahmad, S., Yadav, M.K., **Raza, K.**, Akhtar, S. (2024). **Structure-based virtual screening, molecular docking, molecular dynamics simulation, and metabolic reactivity studies of quinazoline derivatives for their anti-EGFR activity against tumour angiogenesis.** *Current Medicinal Chemistry*, 31(5): 595-619. <https://doi.org/10.2174/0929867330666230309143711> (IF 4.740)
- [53] Famuyiwa, S.O., Ahmad, S., Fakola, E.G., Olusola, A., Adesida, S., Obagunle, F., **Raza, K.** et al. (2023). **Comprehensive computational studies of naturally occurring kuguacins as antidiabetic agents by targeting visfatin.** *Chemistry Africa*, **Springer**, 6: 1415–1427. <https://doi.org/10.1007/s42250-023-00604-8>
- [52] Sahu, A., **Raza, K.**, Pradhan, D., Jain, A.K., Verma, S. (2023). **COX-2 as a therapeutic target against human breast cancer: A comprehensive review.** *WIREs Mechanisms of Disease*, **Wiley**, e1596. <https://doi.org/10.1002/wsbm.1596> (IF 7.288)
- [51] Pan, S., Gupta, T.K., & **Raza, K.** (2023). **BatTS: a hybrid method for optimizing deep feedforward neural network.** *PeerJ Computer Science*, 8:e1194. <http://dx.doi.org/10.7717/peerj-cs.1194> (IF 3.5)
- [50] Qazi, S., Khanna, K., & **Raza, K.** (2023). **Dihydroquercetin (DHQ) has the potential to promote apoptosis in ovarian cancer cells: An in silico and in vitro study.** *Journal of Molecular Structure*, **Elsevier**, 1271: 134093. <https://doi.org/10.1016/j.molstruc.2022.134093> (IF 3.841)
- [49] Sahu, A., Verma, S., Pradhan, D., **Raza, K.**, Qazi, S., Jain, A.K. (2023). **Computational screening for finding new potent cox-2 inhibitors as anticancer agents.** *Letters in Drug Design & Discovery*, 20(2): 213- 224. <http://dx.doi.org/10.2174/1570180819666220128122553> (IF 1.15)

- [48] Yadav, M.K., Ahmad, S., Raza, K., Kumar, S., Eswaran, M., Pasha KM. (2023). **Predictive modeling and therapeutic repurposing of natural compounds against receptor-binding domain of SARS-CoV-2.** *Journal of Biomolecular Structure & Dynamics*, **Taylor & Francis**, 41(5): 1527-1539. <https://doi.org/10.1080/07391102.2021.2021993> (IF 3.392)
- [47] Ahmad, S., Sayeed, S., Bano, N., Sheikh, K. & Raza, K. (2022). **In-silico analysis reveals Quinic acid as a multitargeted inhibitor against Cervical Cancer.** *Journal of Biomolecular Structure & Dynamics*, **Taylor & Francis**, 41(19): 9770-9786. <https://doi.org/10.1080/07391102.2022.2146202>. (IF 5.235)
- [46] Barh, D., Tiwari, S., Rodrigues Gomes, L.G. et al. (2022). **SARS-CoV-2 Variants Show a Gradual Declining Pathogenicity and Pro-Inflammatory Cytokine Stimulation, an Increasing Antigenic and Anti-Inflammatory Cytokine Induction, and Rising Structural Protein Instability: A Minimal Number Genome-Based Approach.** *Inflammation*, **Springer**, 46: 297-312. <https://doi.org/10.1007/s10753-022-01734-w> (IF 4.657)
- [45] Ahmad, S., Kaul, T., Chitkara, P. & Raza, K. (2022). **Comparative insight into Rice chloroplasts genome: Mutational Phylogenomics reveals Echinochloa oryzicola as the ongoing progenitor of rice.** *Genetic Resources and Crop Evolution*, **Springer**, 70: 869-885. <https://doi.org/10.1007/s10722-022-01471-x> (IF 1.876)
- [44] Sharma, N., Kulkarni, G.T., Bhatt, A.N., Satija, S., Singh, L., Sharma, A., Dua, K., Karwasra, R., Khan, A.A., Ahmad, N. & Raza, K. (2022). **Therapeutic options for the SARS-CoV-2 virus: Is there a key in herbal medicine?** *Natural Product Communications*, 17(9): 1-10. <https://doi.org/10.1177/1934578X221126303> (IF 1.5)
- [43] Karwasra, R., Ahmad, S., Bano, N., Qazi, S., Raza, K., Singh, S., & Varma, S. (2022). **Macrophage targeted punicalagin nanoengineering to alleviate Methotrexate Induced Neutropenia: A molecular docking, DFT and MD simulation analysis.** *Molecules*, **MDPI**, 27(18): 6034. <https://doi.org/10.3390/molecules27186034> (IF 4.927)
- [42] Qazi, S., Jit, B.P., Das, A., Karthikeyan, M., Saxena, A., Ray, M.D., Singh, A.R., Raza, K., Jayaram, B., Sharma, A. (2022). **BESFA: bioinformatics based evolutionary, structural & functional analysis of prostrate, Placenta, Ovary, Testis, and Embryo (POTE) paralogs.** *Heliyon*, **CellPress**, e10476. <https://doi.org/10.1016/j.heliyon.2022.e10476> (IF 3.776)
- [41] Hou, J., Bhat, A.M., Ahmad, S., Raza, K. & Qazi, S. (2022). **In silico Analysis of ACE2 Receptor to Find Potential Herbal Drugs in COVID-19 Associated Neurological Dysfunctions.** *Natural Product Communications*, 17(8): 1-15. <https://doi.org/10.1177/1934578X221118549> (IF 1.5)
- [40] Ahmad, S., Bano, N, Qazi, S., Yadav, M. Ahmad, N., & Raza, K. (2022). **Multitargeted molecular dynamic understanding of Butoxypheser against SARS-CoV-2: An in-silico study.** *Natural Product Communications*, 17(7): 1-13. <https://doi.org/10.1177/1934578X221115499> (IF 1.5)
- [39] Jabeen, A., Ahmad, N. & Raza, K. (2022). **Global Gene Expression and Docking Profiling of COVID-19 Infection.** *Frontiers in Genetics*, 13: 870836. <https://doi.org/10.3389/fgene.2022.870836> (IF 4.599)
- [38] Singh, N.K., & Raza, K. (2022). **Progress in Deep Learning-Based Dental and Maxillofacial Image Analysis: A Systematic Review.** *Expert Systems with Applications*, **Elsevier**, 199: 116968. <https://doi.org/10.1016/j.eswa.2022.116968> (IF 6.954)
- [37] Ahmad, S., Pasha K.M., Raza, K., Eswaran, M., Yadav, M.K. (2022). **Reporting Dinaciclib and Theodrenaline as a Multitargeted Inhibitor against SARS-CoV-2: An in-silico Study.** *Journal of Biomolecular Structure & Dynamics*, **Taylor & Francis**, 41(9): 4013-4023. <https://doi.org/10.1080/07391102.2022.2060308> (In Press). (IF 3.392)
- [36] Khuntia, B., Sharma, V., Wadhawan, M., Chhabra, V., Kidambi, B., Rathore, S., Agrawal, A., Ram, A., Qazi, S., Ahmad, S., Raza, K., Sharma, G. (2022). **Antiviral potential of Indian medicinal plants against Influenza and SARS-CoV: A systematic review.** *Natural Product Communications*, 17(3): 1-10. <http://dx.doi.org/10.1177/1934578X221086988> (IF 1.5)
- [35] Wani, N., Barh, D. & Raza, K. (2021). **Modular network inference between miRNA-mRNA expression profiles using weighted co-expression network analysis.** *Journal of Integrative Bioinformatics*, 18(4): 20210029. <https://doi.org/10.1515/jib-2021-0029> (IF 3.321)

- [34] Qazi, S. & Raza, K. (2021). **In silico approach to understand epigenetics of POTEE in ovarian cancer.** *Journal of Integrative Bioinformatics*, 18(4): 20210028. <https://doi.org/10.1515/jib-2021-0028> (IF 3.321)
- [33] Isa, M.A., Mustapha, A., Qazi, S., Raza, K., Allamin, I.A., Ibrahim, M.M., & Mohammed, M.M. (2022). **In silico Molecular Docking and Molecular Dynamic Simulation of Potential Inhibitors of 3C-Like Main Proteinase (3CLpro) from Severe Acute Respiratory Syndrome-2 (SARS-CoV-2) using Selected African Medicinal Plants.** *Advances in Traditional Medicine*, Springer, 22, 107–123. <https://doi.org/10.1007/s13596-020-00523-w> (IF 0.90)
- [32] Rai, A., Qazi, S., & Raza, K. (2022). **In silico analysis and comparative molecular docking study of FDA approved drugs with Transforming Growth Factor Beta receptors in Oral Submucous Fibrosis.** *Indian Journal of Otolaryngology and Head & Neck Surgery*, Springer, 74 (Suppl 2), 2111–2121. <https://doi.org/10.1007/s12070-020-02014-5> (IF 0.390)
- [31] Satyam, R., Yousef, M., Qazi, S., Bhat, A.M., & Raza, K. (2021). **COVIDium: A COVID-19 Resource Compendium.** Database, Oxford University Press, 2021: baab057. <https://doi.org/10.1093/database/baab057> (IF 3.451)
- [30] Khuntia, B., Sharma, V., Qazi, S., Das, S., Sharma, S., Raza, K. & Sharma, G. (2021). **Ayurvedic medicinal plants against COVID-19: an in silico analysis.** *Natural Product Communications*, 16(11): 1–9. <https://doi.org/10.1177/1934578X211056753> (IF 1.5)
- [29] Qazi, S., Das, S., Khuntia, B., Sharma, V., Sharma, S., Sharma, G., & Raza, K. (2021). **In silico molecular docking and molecular dynamic simulation analysis of phytochemicals from Indian foods as potential inhibitors of SARS-CoV-2 RdRp and 3CLpro.** *Natural Product Communications*, 16(9): 1–12. <https://doi.org/10.1177/1934578X211031707> (IF 1.5)
- [28] Yang, X., Alam, A., Iqbal, N. & Raza, K. (2021). **Repurposing of FDA-approved drugs to predict new inhibitors against key regulatory genes in Mycobacterium tuberculosis.** *Biocell*, 45(6): 1569–1583. <https://doi.org/10.32604/biocell.2021.017019> (IF 1.254)
- [27] Khan, S., Akrema, Qazi, S., Ahmad, R., Raza, K., Rahisuddin * (2021). **In Silico and Electrochemical studies for ZnO-CuO Based Immunosensor for Sensitive and Selective Detection of E. coli.** *ACS Omega*, American Chemical Society, 6(24): 16076–16085. <https://doi.org/10.1021/acsomega.1c01959> (IF 3.512)
- [26] Zhang, Y., Qazi, S., & Raza, K. (2021). **Differential expression analysis in Ovarian Cancer: A functional genomics and systems biology approach.** *Saudi Journal of Biological Sciences*, Elsevier, 28(7): 4069–4081. <https://doi.org/10.1016/j.sjbs.2021.04.022> (IF 4.219)
- [25] Qazi, S., & Raza, K. (2021). **Phytochemicals from Ayurvedic plants as potential medicaments for Ovarian cancer: An in silico analysis.** *Journal of Molecular Modeling*, Springer, 27: 114. <https://doi.org/10.1007/s00894-021-04736-x> (IF 1.810)
- [24] Qazi, S., Sheikh, K. & Raza, K. (2021). **In silico approach to understand the epigenetic mechanism of SARS-CoV-2 and its impact on the environment.** *VirusDisease*, Springer, 32: 286–297. <https://doi.org/10.1007/s13337-021-00655-w>
- [23] Qazi, S., Sharma, A. & Raza, K. (2021). **The role of epigenetic changes in Ovarian Cancer: A review.** *Indian Journal of Gynecologic Oncology*, Springer, 19: 27. <https://doi.org/10.1007/s40944-021-00505-z>
- [22] Wani, N. & Raza, K. (2021). **MKL-GRNI: A Parallel Multiple Kernel Learning approach for supervised inference of large-scale gene regulatory networks.** *PeerJ Computer Science*, 7:e363. <https://doi.org/10.7717/peerj-cs.363> (IF 3.5)
- [21] Raza, K. & Singh, N.K. (2021). **A Tour of Unsupervised Deep Learning for Medical Image Analysis.** *Current Medical Imaging*, Bentham Science, 17(9): 1059–1077. <https://doi.org/10.2174/1573405617666210127154257> (IF 0.858)
- [20] Karwasra, R., Singh, S., Raza, K., Sharma, N., & Varma, S. (2020). **A brief overview on current status of nanomedicines for treatment of pancytopenia: focusing on chemotherapeutic regime.** *Journal of Drug Delivery Science and Technology*, Elsevier, 61, 102159. <https://doi.org/10.1016/j.jddst.2020.102159> (IF 3.981)
- [19] Karwasra, R., Faithi, S., Raza, K., Khanna, K., Sharma, N., Sharma, D., Singh, S., Varma, S. **Filgrastim loading in PLGA and SLN nanoparticulate system: A bioinformatics approach,** *Drug Development*

- and *Industrial Pharmacy*, **Taylor & Francis**, 46(8), 1354-1361. <https://doi.org/10.1080/03639045.2020.1788071> (IF 6.225)
- [18] Mazumder, J., Khan, E., Perwez, M., Gupta, M., Kumar, S., **Raza, K.**, Sardar, M. Enzyme-assisted synthesis of ZnO Nanoparticles, in silico studies and its effect on sustainable growth of Brassica juncea. *Scientific Reports, Nature*, 10, 8531. <https://doi.org/10.1038/s41598-020-65271-y> (IF 4.379)
- [17] Gupta, T.K. & **Raza, K.** Optimizing Deep Feedforward Neural Network Architecture: A Tabu Search Based Approach. *Neural Processing Letters, Springer*, 51: 2855-2870 (IF2.908)
- [16] Wani, N., & **Raza, K.** (2019). iMTF-GRN: Integrative Matrix Tri-factorization for Inference of Gene Regulatory Networks. *IEEE Access*, 7: 126154-126163 <https://doi.org/10.1109/ACCESS.2019.2936794> (IF 3.337)
- [15] Wani, N., & **Raza, K.** (2019). Integrative approaches to reconstruct regulatory networks from multi-omics data: A review of state-of-the-art methods. *Computational Biology and Chemistry, Elsevier*, 83: 107120. <https://doi.org/10.1016/j.compbiolchem.2019.107120> (IF 2.877)
- [14] Khatoon, N., Alam, H., Khan, A., **Raza, K.** & Sardar, M. (2019). Ampicillin Silver Nanoformulations against Multidrug resistant bacteria. *Scientific Reports*, 9: 6848. <https://doi.org/10.1038/s41598-019-43309-0> (IF 4.379)
- [13] **Raza, K.** (2018). Fuzzy logic based approaches for gene regulatory network inference. *Artificial Intelligence in Medicine, Elsevier*, 97: 189-203. <https://doi.org/10.1016/j.artmed.2018.12.004> (IF 5.326)
- [12] Kumar, S., Ahmad, S., Siddiqi, M.I. & **Raza, K.** (2019). Mathematical Model for Plant-Insect Interaction with Dynamic Response to PAD4-BIK1 Interaction and Effect of BIK1 Inhibition. *BioSystems, Elsevier*, 175(2019): 11-23. <https://doi.org/10.1016/j.biosystems.2018.11.005> (IF 1.973)
- [11] Manazir, A. & **Raza, K.** (2019). Recent developments in Cartesian Genetic Programming and its variants. *ACM Computing Surveys*, 51(6): 122. <http://dx.doi.org/10.1145/3275518> (IF 23.8)
- [10] Faiza, M., Tanveer, K., Fatihi, S., Wang, Y. & **Raza, K.** (2019). Comprehensive overview and assessment of miRNA target prediction tools in human and drosophila melanogaster. *Current Bioinformatics*, 14(5): 432-445. <https://doi.org/10.2174/1574893614666190103101033> (IF 3.543)
- [9] **Raza, K.** & Ahmad, S. (2019). Recent Advancement in Next-Generation Sequencing Techniques and its Computational Analysis. *International Journal of Bioinformatics Research and Applications, Inderscience*, 15(3): 191-220. <https://dx.doi.org/10.1504/IJBRA.2019.10022508> (CiteScore 0.50)
- [8] Khan, F.N., Qazi, S., Tanveer, K. & **Raza, K.** (2017). A Review on the Antagonist Ebola: A Prophylactic Approach. *Biomedicine & Pharmacotherapy, Elsevier*, 96: 1513-1526. <https://doi.org/10.1016/j.biopha.2017.11.103> (IF 6.529)
- [7] **Raza, K.** (2017). Formal Concept Analysis for Knowledge Discovery from Biological Data. *International Journal of Data Mining and Bioinformatics, Inderscience*, 18(4): 281-300. <https://doi.org/10.1504/IJDMB.2017.10009312> (IF 0.667)
- [6] **Raza, K.**, & Alam, M. (2016). Recurrent Neural Network Based Hybrid Model for Reconstructing Gene Regulatory Network. *Computational Biology and Chemistry, Elsevier*, 64: 322-334. <http://doi.org/10.1016/j.compbiolchem.2016.08.002> (IF 2.877)
- [5] **Raza, K.** (2016). Reconstruction, Topological and Gene Ontology Enrichment Analysis of Cancerous Gene Regulatory Network Modules. *Current Bioinformatics*, 11(2): 243-258. <http://doi.org/10.2174/1574893611666160115212806> (IF 3.543)

- [4] **Raza, K.** & Hasan, A.N. (2015). **A Comprehensive Evaluation of Machine Learning Techniques for Cancer Class Prediction Based on Microarray Data.** *International Journal of Bioinformatics Research and Applications*, **Inderscience**, 11(5): 397-416. <http://doi.org/10.1504/IJBRA.2015.071940> (CiteScore 0.50)
- [3] **Raza, K.** & Jothiprakash, V. (2014). **Multi-Output ANN Model for Prediction of Seven Meteorological Parameters in a Weather Station.** *Journal of The Institution of Engineers (India): Series A*, **Springer**, 95(4): 221-229. <http://doi.org/10.1007/s40030-014-0092-9> (CiteScore 1.10)
- [2] **Raza, K.** (2014). **Clustering Analysis of Cancerous Microarray Data.** *Journal of Chemical and Pharmaceutical Research*, 6(9): 488-493.
- [1] Ahmad, S., Hamza, A. & **Raza, K.** (2013). **PREs-Clustered Motifs in Drosophila melanogaster.** *Res. J. Pharm., Biol. Chem. Sci.*, 4(4): 1100-1110.

Book Chapters/Conference Proceedings (63)

- [63] Takkar, G. & Raza, K. (2024). **Leveraging SVM and LSTM Networks for Enhanced Cancer Stage Detection from Single-Cell RNA-seq Data.** In *Proc. of COMSYS-2024, LNNS*, **Springer** (Accepted).
- [62] Raza, K. (2024). **LSTM-GRN: A Deep Learning Model for the Prediction of Gene Regulatory Networks from Single-Cell Data.** In *Proc. of Sixth International Conference on Soft Computing and its Engineering Applications 2024, CCIS*, **Springer** (In Press). https://doi.org/10.1007/978-3-031-88042-1_3
- [61] Barbhuiya, R.K., Ahmad, N., Paul, C., Alam, R. & **Raza, K.** (2024). **Fundamentals of Encoders and Decoders in Generative AI.** *Generative AI: Current Trends and Applications*, **Springer**, 1177: 19–33. https://doi.org/10.1007/978-981-97-8460-8_2
- [60] Ahmad, S., Bano, N., Sharma, S., Sakina, S., Ahmad, N. & **Raza, K.** (2024). **Generative AI in Drug Designing: Current State-of-the-art and Perspectives.** *Generative AI: Current Trends and Applications*, **Springer**, 1177: 427–463. http://www.doi.org/10.1007/978-981-97-8460-8_20
- [59] Anjum, Z., Khalid, W., Takkar, G., Chhetri, P. & **Raza, K.** (2025). **AI and Deep Learning in Single-Cell Omics Data Analysis: A Case Study.** *Deep Learning in Genetics and Genomics*, vol. 2. **Elsevier**, 349-383. <https://doi.org/10.1016/B978-0-443-27523-4.00007-X>
- [58] Bano, N., Sajid, I., Barh, D. & **Raza, K.** (2025). **Advancements in AI-driven Spatial Transcriptomics: Decoding Cellular Complexity.** *Deep Learning in Genetics and Genomics*, vol. 2. **Elsevier**, 87-106. <https://doi.org/10.1016/B978-0-443-27523-4.00006-8>
- [57] Ahmad, S., Bashar, A., Khanna, K., Bano, N. & **Raza, K.** (2025). **Deep Learning in Variant Detection and Annotation.** *Deep Learning in Genetics and Genomics*, vol. 1. **Elsevier**, 383-396. <https://doi.org/10.1016/B978-0-443-27574-6.00010-2>
- [56] Ansari, A., Gangwar, S. & **Raza, K.** (2025). **Data-driven Genomics: A Triad of Big Data, Cloud, and IoT in Genomics Research.** *Deep Learning in Genetics and Genomics*, vol. 1. **Elsevier**, 363-381. <https://doi.org/10.1016/B978-0-443-27574-6.00016-3>
- [55] Ahmad, S., Tanveer, K., Bano, N., Ahmad, F. & **Raza, K.** (2024). **Artificial Bee Colony Algorithms in Gene Expression Studies: A Case Study.** *Solving with Bees: Transformative Applications of Artificial Bee Colony Algorithm*, **Springer**, 159–182. https://doi.org/10.1007/978-981-97-7344-2_10
- [54] Akram, F., Aziz, S., Khan, N.A., Faizi, S.A., & **Raza, K.** (2024). **Integrating Artificial Bee Colony Algorithms for Deep Learning Model Optimization: A Comprehensive Review.** *Solving with Bees: Transformative Applications of Artificial Bee Colony Algorithm*, **Springer**, 73–102. https://doi.org/10.1007/978-981-97-7344-2_5
- [53] Singh, N.K. & **Raza, K.** (2024). **A Single-Stage Deep Learning Approach for Multiple Treatment and Diagnosis in Panoramic X-ray.** In *Proc. of 23rd International Conference on Intelligent Systems Design and Applications (ISDA 2023)*, LNNS, **Springer**, 1046, 1–10. https://doi.org/10.1007/978-3-031-64813-7_25 (CORE-2023 Ranking 'B')
- [52] Bano, N., Sajid, I., Faizi, S.A.A., Mutshembe, A., Barh, D. & **Raza, K.** **Computational Intelligence Methods for Biomarkers Discovery in Autoimmune Diseases: Case Studies.** *Studies in Computational Intelligence*, **Springer**, 1133, 303-323. https://doi.org/10.1007/978-981-99-9029-0_15

- [51] Faizi, A.A., Singh, N.K., Kamal, A., & Raza, K. (2024). **Generative adversarial networks in protein and ligand structure generation: a case study.** *Deep Learning Applications in Translational Bioinformatics*, Elsevier, 15: 231-248. <https://doi.org/10.1016/B978-0-443-22299-3.00014-1>
- [50] Ahmad, S., Aslam, D., Ansari, A., Bhat, A.M., Raza, K. (2024). **Deep learning in computer-aided drug design: a case study.** *Deep Learning Applications in Translational Bioinformatics*, Elsevier, 15: 191-210. <https://doi.org/10.1016/B978-0-443-22299-3.00012-8>
- [49] Yadav, M.K., Bhutani, K., Ahmad, S., Raza, K., Singh, A. & Kumar, S. (2024). **Application of machine learning-based approaches in stem cell research.** *Computational Biology for Stem Cell Research*, Elsevier, 65-84. <https://doi.org/10.1016/B978-0-443-13222-3.00007-1>
- [48] Singh, N.K., Faisal, M., Hasan S., Goshwani, G., & Raza, K. (2023). **Dental Treatment Type Detection in Panoramic X-Rays Using Deep Learning.** In Proc. of 22nd International Conference Intelligent Systems Design and Applications (ISDA-2022), December 12-14, 2022. LNNS, Springer, 716: 25-33. https://doi.org/10.1007/978-3-031-35501-1_3 (CORE-2021 Ranking 'C')
- [47] Singh, N.K. & Raza, K. (2023). **TeethU2Net: A Deep Learning-Based Approach for Tooth Saliency Detection in Dental Panoramic Radiographs.** In Proc. of 29th International Conference on Neural Information Processing (ICONIP 2022), CCIS 1794, Springer, 1794: 224-234. https://doi.org/10.1007/978-981-99-1648-1_19 (CORE-2021 Ranking 'B')
- [46] Ahmad, S., Khan, F.N., Ramlal, A., Begum, S., Qazi S., & Raza, K. (2022). **Nanoinformatics and nanomodeling: Recent developments in computational nanodrug design and delivery systems.** *Emerging Nanotechnologies for Medical Applications*, Elsevier, 1-36. <https://doi.org/10.1016/B978-0-323-91182-5.00001-2>
- [45] Manazir, A. & Raza, K. (2022). **pCGP: A Parallel Implementation of Cartesian Genetic Programming for Combinatorial Circuit Design and Time-Series Prediction.** 2022 International Conference on Electrical, Computer and Energy Technologies (ICECET), Prague, Czech Republic, IEEE, 1-4. <https://doi.org/10.1109/ICECET55527.2022.9872630>
- [44] Ahmad, S. et al. (2022). **Illustrious Implications of Nature-Inspired Computing Methods in Therapeutics and Computer-Aided Drug Design.** In: Raza, K. (eds) *Nature-Inspired Intelligent Computing Techniques in Bioinformatics, Studies in Computational Intelligence*, Springer, 1066: 293-308. https://doi.org/10.1007/978-981-19-6379-7_15
- [43] Qazi, S., Khanam, A. & Raza, K. (2022). **Potential Role of the Nature-Inspired Algorithms for Classification of High-Dimensional and Complex Gene Expression Data.** In: Raza, K. (eds) *Nature-Inspired Intelligent Computing Techniques in Bioinformatics, Studies in Computational Intelligence*, Springer, 1066: 89-102. https://doi.org/10.1007/978-981-19-6379-7_5
- [42] Qazi, W., Qazi, S., Iqbal, N. & Raza, K. (2022). **The Scope and Applications of Nature-Inspired Computing in Bioinformatics.** In: Raza, K. (eds) *Nature-Inspired Intelligent Computing Techniques in Bioinformatics, Studies in Computational Intelligence*, Springer, 1066: 3-18. https://doi.org/10.1007/978-981-19-6379-7_1
- [41] Qazi, S. & Raza, K. (2022). **Integrative Analysis of Ovarian Serious Adenocarcinoma to Understand Disease Network Biology.** In *Lecture Notes in Bioinformatics*, Springer, 13347: 1-15. https://doi.org/10.1007/978-3-031-07802-6_1
- [40] Gupta, T.K., & Raza, K. (2022). **Optimization of Artificial Neural Network: A bat algorithm-based approach.** In Proc. of 21st International Conference Intelligent Systems Design and Applications, December 13-15, 2021. *Lecture Notes in Networks and Systems*, Springer, 418: 286-295. https://doi.org/10.1007/978-3-030-96308-8_26 (CORE-2021 Ranking 'C')
- [39] Manazir, A., & Raza, K. (2022). **Comparative Evaluation of Genetic Operators in Cartesian Genetic Programming.** In Proc. of 21st International Conference Intelligent Systems Design and Applications, December 13-15, 2021. *Lecture Notes in Networks and Systems*, Springer, 418: 765-774. https://doi.org/10.1007/978-3-030-96308-8_26 (CORE-2021 Ranking 'C')
- [38] Qazi, S., Iqbal, N. & Raza, K. (2022). **Fuzzy Logic-Based Hybrid Models for Clinical Decision Support Systems in Cancer.** *Computational Intelligence in Oncology, Studies in Computational Intelligence (SCI)*, Springer, 1016: 1-13. https://doi.org/10.1007/978-981-16-9221-5_12
- [37] Sahu, A., Qazi, S., Raza, K., Singh, A., Verma, S. (2022). **Machine Learning-Based Approach for Early Diagnosis of Breast Cancer Using Biomarkers and Gene Expression Profiles.** In: Raza, K. (eds) *Computational Intelligence in Oncology, Studies in Computational Intelligence (SCI)*, Springer, 1016: 285-306. https://doi.org/10.1007/978-981-16-9221-5_17

- [36] Khan, F.N., Yousef, M. & Raza, K. (2022). **Machine Learning-Based Models in the Diagnosis, Prognosis and Effective Cancer Therapeutics: Current State-of-the-Art**. In: Raza, K. (eds) *Computational Intelligence in Oncology, Studies in Computational Intelligence (SCI)*, Springer, 1016: 17-52. https://doi.org/10.1007/978-981-16-9221-5_2
- [35] Raza, K., Qazi, S., Sahu, A., & Varma, S. (2022). **Computational Intelligence in Oncology: Past, Present, and Future**. In: Raza, K. (eds) *Computational Intelligence in Oncology, Studies in Computational Intelligence (SCI)*, Springer, 1016: 1-16. https://doi.org/10.1007/978-981-16-9221-5_1
- [34] Qazi, S., Khanam, A. & Raza, K. (2021). **Ebola Virus: Overview, Genome Analysis and Its Antagonists**. *Human Viruses: Diseases, Treatments and Vaccines*, Springer, 123-142. https://doi.org/10.1007/978-3-030-71165-8_6
- [33] Alam, M.T. & Raza, K. (2021). **Blockchain technology In Healthcare: Making digital healthcare reliable, more accurate and revolutionary** *Translational Bioinformatics in Healthcare and Medicine*, Elsevier, 81-96. <https://doi.org/10.1016/B978-0-323-89824-9.00007-0>
- [32] Alam, A., Rashid, I. & Raza, K. (2021). **Application, Functionality and security issues of data mining techniques in healthcare informatics**. *Translational Bioinformatics in Healthcare and Medicine*, Elsevier, 149-156. <https://doi.org/10.1016/B978-0-323-89824-9.00012-4>
- [31] Ahmad, S., Qazi, S. & Raza, K. (2021). **Translational bioinformatics methods for drug discovery and drug repurposing**. *Translational Bioinformatics in Healthcare and Medicine*, Elsevier, 127-139. <https://doi.org/10.1016/B978-0-323-89824-9.00010-0>
- [30] Qazi, S. & Raza, K. (2021). **Translational Bioinformatics in Healthcare: Past, Present and Future**. *Translational Bioinformatics in Healthcare and Medicine*, Elsevier, 1-12. <https://doi.org/10.1016/B978-0-323-89824-9.00001-X>
- [29] Qazi, S., & Raza, K. (2021). **A Fuzzy Logic-based Knowledge System for Detection and Diagnosis of Childhood Autism**. *Handbook on Decision Support Systems for Neurological Disorders*, Elsevier, 55-69. <https://doi.org/10.1016/B978-0-12-822271-3.00016-5>
- [28] Sheikh, K. & Raza, K. (2021). **Viroinformatics and viral diseases: new era of interdisciplinary science for a thorough apprehension of virology** *Translational Bioinformatics Applications in Healthcare*, CRC Press, 109-132. <https://doi.org/10.1201/9781003146988-8>
- [27] Khan, F.N., Raza, K., & Ahmad, S. (2021). **Clinical applications of Next-generation sequence analysis in Acute Myelogenous Leukaemia**. *Translational Bioinformatics Applications in Healthcare*, CRC Press, 41-66. <https://doi.org/10.1201/9781003146988-4>
- [26] Qazi, S., Iqbal, N. & Raza, K. (2021). **Artificial Intelligence in Medicine (AIM): Machine Learning in Cancer Diagnosis, Prognosis and Therapy**. *Artificial Intelligence for Data-Driven Medical Diagnosis*, DeGruyter, 103-126. <https://doi.org/10.1515/9783110668322-005>
- [25] Kumar, N. & Raza, K. (2021). **Medical Image Generation using Generative Adversarial Network: A Review**. *Health Informatics: A Computational Perspective in Healthcare, Studies in Computational Intelligence (SCI)*, Springer, 932: 77-96. https://doi.org/10.1007/978-981-15-9735-0_5
- [24] Alam, A., Qazi, S., Iqbal, N. & Raza, K. (2020). **Fog, Edge and Pervasive computing in Intelligent IoT driven applications in Healthcare**. *Emerging trends and role of Fog, Edge and Pervasive Computing in Intelligent IoT driven applications*, IEEE-Wiley, 1-26. <https://doi.org/10.1002/9781119670087.ch1>
- [23] Sahu, A., Qazi, S., Raza, K., Varma, S. (2020). **COVID-19: Hard road to find integrated computational drug repurposing pipeline**. *Computational Intelligence for COVID-19: Surveillance, Prevention, Prediction and Diagnosis, Studies in Computational Intelligence (SCI)*, Springer, 923: 295-309. https://doi.org/10.1007/978-981-15-8534-0_15
- [22] Qazi, S., Ahmad, S. & Raza, K. (2020). **Using Computational Intelligence for Tracking COVID-19 Outbreak in Online Social Networks**. *Computational Intelligence for COVID-19: Surveillance, Prevention, Prediction and Diagnosis, Studies in Computational Intelligence (SCI)*, Springer, 923:47-59. https://doi.org/10.1007/978-981-15-8534-0_3
- [21] Raza, K., Maryam, Qazi, S. (2020). **An Introduction to Computational Intelligence for COVID-19: Surveillance, Prevention, Prediction, and Diagnosis**. *Computational Intelligence for COVID-19: Surveillance, Prevention, Prediction and Diagnosis, Studies in Computational Intelligence (SCI)*, Springer, 923: 3-18. https://doi.org/10.1007/978-981-15-8534-0_1

- [20] **Raza, K.** (2020). **Artificial intelligence against COVID-19: A meta-analysis of current research.** *Big Data Analytics Intelligence Against COVID-19: Innovation Vision and Approach*, **Springer**, 78: 165-176. https://doi.org/10.1007/978-3-030-55258-9_10
- [19] Sahu, A., Pradhan, D., **Raza, K.**, Qazi, S., Jain, A.K., & Verma, S. (2020). **In silico library design, screening and MD simulation of COX-2 inhibitors for anticancer activity.** In *Proc. of 12th International Conference on Bioinformatics and Computational Biology (BICOB-2020)*, San Francisco, CA, United States, March 23-25, 2020.
- [18] Qazi, S. & **Raza, K.** (2020). **Towards a VIREAL platform: Virtual reality in cognitive and behavioural training for Autistic individuals.** *Advanced Computational Intelligence Techniques for Virtual Reality in Healthcare, Studies in Computational Intelligence SCI*, **Springer**, 875: 25-47. https://doi.org/10.1007/978-3-030-35252-3_2
- [17] Ahmad, N., Jabeen, N. & **Raza, K.** (2020). **Machine Learning Based Outlook for the Analysis of SNP-SNP Interaction for Biomedical Big Data.** *Lecture Notes in Electrical Engineering*, **Springer**, 601: 1-10. https://doi.org/10.1007/978-981-15-1420-3_2
- [16] Qazi, S. & **Raza, K.** (2020). **Smart Biosensors for an efficient Point of Care (PoC) Health Management.** *Smart Biosensors in Medical Care*, **Elsevier**, 1-20. <https://doi.org/10.1016/B978-0-12-820781-9.00004-8>
- [15] Jabeen, A., Ahmad, N. & **Raza, K.** (2019). **Differential Expression Analysis of ZIKV Infected Human RNA Sequence Reveals Potential Genetic Biomarkers.** *Lecture Notes in Bioinformatics*, **Springer**, 11465: 1-12. https://doi.org/10.1007/978-3-030-17938-0_26
- [14] **Raza, K.** & Qazi, S. (2019). **Nanopore Sequencing Technology and Internet of Living Things: A Big Hope for U-Healthcare.** *Sensors for Health Monitoring*, **Elsevier**, 5: 95-116. <https://doi.org/10.1016/B978-0-12-819361-7.00005-1>
- [13] Farooqi, M.R., Iqbal, N., Singh, N.K., Affan, M. & **Raza, K.** (2019). **Wireless Sensor Networks towards convenient infrastructure in Health care industry: A systematic study.** *Sensors for Health Monitoring*, **Elsevier**, 5: 31-46. <https://doi.org/10.1016/B978-0-12-819361-7.00002-6>
- [12] Qazi, S., Tanveer, K., El-bahnasy, K. & **Raza, K.** (2019). **From Telediagnosis to Teletreatment: The Role of Computational Biology and Bioinformatics in Tele-based Healthcare.** *Telemedicine Technologies*, **Elsevier**, 153-169. <https://doi.org/10.1016/B978-0-12-816948-3.00010-6>
- [11] Wani, N. & **Raza, K.** (2019). **Raw Sequence to Target Gene Prediction: An Integrated Inference Pipeline for ChIP-seq and RNA-seq Datasets.** In: Malik H., Srivastava S., Sood Y., Ahmad A. (eds) *Applications of Artificial Intelligence Techniques in Engineering. Advances in Intelligent Systems and Computing*, **Springer**, 697: 557-568. https://doi.org/10.1007/978-981-13-1822-1_52
- [10] Gupta, T.K. & **Raza, K.** (2019). **Optimization of ANN Architecture: A Review on Nature-Inspired Techniques.** In *Machine Learning in Bio-Signal Analysis and Diagnostic Imaging*, **Elsevier**, 159-182. <https://doi.org/10.1016/B978-0-12-816086-2.00007-2>
- [9] **Raza, K.** (2019). **Improving the Prediction Accuracy of Heart Disease with Ensemble Learning and Majority Voting Rule.** In *Advances in Ubiquitous Sensing Applications for Healthcare, U-Healthcare Monitoring Systems: Design and Applications*, Academic Press, **Elsevier**, 179-196. <https://doi.org/10.1016/B978-0-12-815370-3.00008-6>
- [8] Jabeen, A., Ahmad, N. & **Raza, K.** (2018). **Machine Learning-based State-of-the-art Methods for the Classification of RNA-Seq Data.** In: Dey N., Ashour A., Borra S. (eds). *Classification in BioApps. Lecture Notes in Computational Vision and Biomechanics*, **Springer**, 26: 133-172. https://doi.org/10.1007/978-3-319-65981-7_6
- [7] Wani, N. & **Raza, K.** (2018). **Multiple Kernel Learning Approach for Medical Image Analysis.** In: Dey N, Ashour A, Shi F, Balas E (eds), *Soft Computing Based Medical Image Analysis*, **Elsevier**, 31-47. <https://doi.org/10.1016/B978-0-12-813087-2.00002-6>
- [6] **Raza, K.** (2017). **Protein Features Identification for Machine Learning-based Prediction of Protein-Protein Interactions.** In *Proc. of Communications in Computer and Information Science*, **Springer**, 750: 305-317. https://dx.doi.org/10.1007/978-981-10-6544-6_28

- [5] **Raza, K.** (2016). **Analysis of Microarray Data Using Artificial Intelligence Based Techniques.** *Handbook of Research on Computational Intelligence Applications in Bioinformatics*, **IGI Global**, 216-239. <http://doi.org/10.4018/978-1-5225-0427-6.ch011>
- [4] **Raza, K.** (2015). **M5 Model Tree and Gene Expression Programming for the Prediction of Metrological Parameters.** In *Proc. of 2015 International Conference on Computers, Communications, and Systems (ICCCS-2015)*, 47-51, **IEEE**. <http://dx.doi.org/10.1109/CCOMS.2015.7562850>
- [3] **Raza, K.** & Kohli, M. (2015). **Ant Colony Optimization for Inferring Key Gene Interactions.** In *Proc. of 9th INDIACom-2015, 2nd International Conference on Computing for Sustainable Global Development*, 1242-1246, **IEEE**.
- [2] **Raza, K.** & Parveen, R. (2013). **Soft Computing Approach for Modeling Genetic Regulatory Networks.** *Advances in Intelligent Systems and Computing*, **Springer**, 178: 1-11. http://doi.org/10.1007/978-3-642-31600-5_1
- [1] **Raza, K.** & Parveen, R. (2013). **Reconstruction of Gene Regulatory Network of Colon Cancer Using Information Theoretic Approach.** In *Proc. of 4th International Conference (CONFLUENCE-2013): The Next Generation Information Technology Summit 2013*, p. 461-466. <http://doi.org/10.1049/cp.2013.2357>

Posters (7)

- [7] Ahmad, S., & **Raza, K.** (2022). **Multitargeted docking-based simulative understanding of Theodrenaline against lung cancer: an in-silico study.** *21st International Conference on Bioinformatics (InCoB)*, 21-23 November 2022. **(Best Poster Presentation Award)**
- [6] Bhat, A.M, & **Raza, K.** (2022). **Identification of potential diagnostic biomarkers of Gastric Cancer from RNA-seq analysis.** *3rd ICGA Conference - Biobanking to Omics: Collecting the Global Experience*, 13-14 Jan 2022. https://i0.wp.com/icga-conference.ctcr.in/wp-content/uploads/2022/01/Adil_Bhat_track2.png
- [5] Sahu, A., **Raza, K.**, Ahmad, S. & Verma, S. (2019). **In Silico Study of Aromatase Inhibitors Using Computer-Aided Drug Design against Breast Cancer.** *World Congress on Reproductive Health with Emphasis on Reproductive Cancers, Infertility and Assisted Reproduction*, Shri Mata Vaishno Devi University, Jammu and Kashmir, India, 14-16 Feb, 2020. <http://doi.org/10.13140/RG.2.2.33559.73128>
- [4] Rai, A., Sahu, A., Varma, S., **Raza, K.**, Parveen, S., Ali, S. (2019). **Molecular docking, protein ligands interaction and ADMET analysis of arecoline with TGF-Beta receptors for the treatment of OSMF.** *Interdisciplinary Science Conference on Big Data and Computational Biology*, CIRBSc, JMI, 21-22 Oct, 2019.
- [3] Qazi, S. & **Raza, K.** (2019). **Prostate, Ovary, Testis, Embryo Expression (POTE) Family: Evolutionary, Structural and Functional Analysis.** *Interdisciplinary Science Conference on Big Data and Computational Biology*, CIRBSc, Jamia Millia Islamia, 21-22 Oct, 2019.
- [2] Faiza M., Tanveer K., Fatihi S., & **Raza, K.** (2017). **Comprehensive assessment of miRNA target prediction tools in human and drosophila melanogaster.** *National Conference on Breaking Barriers through Bioinformatics & Computational Biology*, Supercomputing Facility for Bioinformatics & Computational Biology, IIT Delhi, July 31- Aug 01, 2017.
- [1] Sanjay & **Raza, K.** (2017). **Plants can communicate through surface receptors.** *DBT-BIF Sponsored National Workshop on Translational Bioinformatics*, 15-16 Feb 2017 at Jamia Millia Islamia.

PATENT (GRANTED/FILED)

- Title (German): **Tablettenzusammensetzung mit verlängerter Wirkstofffreisetzung für die Multitarget-Krebstherapie**
Title (English): **Extended-Release Tablet Composition for Multitarget Cancer Therapy.**
Inventors: **S. Ahmad, M.E. Abbas, M.S. Alqahtani, N. Bano, and K. Raza**
Country: **Germany** Status: **Granted**
Link: <https://register.dpma.de/DPMAregister/pat/register?AKZ=2020241010280&CURSOR=8>
- Title (English): **Ammetazebenpro: A Novel Multitargeted Therapeutic Agent for Effective Management of Lung Cancer**
Inventors: **S. Ahmad and K. Raza**
Country: **India** Status: **In Process**

- Title (English): **Treating Lung Cancer with Multitargeted Drug Molecule Anthofluoquinoxaline**
Inventors: **S. Ahmad and K. Raza**
Country: **India**
Status: **In Process**

FUNDED RESEARCH PROJECTS (05)

- Title: **"Developing DdpMPyPEPhU as a Multitargeted Drug for Breast Cancer using AI-guided Enumeration-based Optimisation, Synthesis, and Preclinical Evaluation in PDX Model"**
Role: **Principal Investigator**, Duration: 3 Years (2025-2028)
Funding Agency: **ICMR (Small Extramural Grants) (₹ 93,95,1121)**
Status: **Ongoing**
- Title: **"Comprehending the correlation between nanoinformatics data and mechanistic nanoformulations"**
Role: **Co-Principal Investigator**, Duration: 3 Years (2025-2028)
Funding Agency: **ANRF (SERB Core Research Grants) (₹ 34,65,980)**
Status: **Ongoing**
- Title: **"Target identification and efficacy enhancement of proven MDR overcoming Piper spp derived compounds towards candidate drug development against WHO priority 1 (critical) MDR pathogens: P. aeruginosa, E. coli, K. pneumoniae, and M. tuberculosis"**
Role: **Principal Investigator**, Duration: 3 Years (2023-2026)
Funding Agency: **BRICS STI FP (Brazil: R\$ 160,930; Russia: P 21,000,000 & South Africa: ZAR 3,000,000)**
Status: **Ongoing**
- Title: **"Analysis of Microarray Data Using Artificial Intelligence Based Techniques"**
Role: **Principal Investigator**, Duration: 2 Years (April, 2013 to March, 2015)
Funding Agency: **University Grants Commission, India (₹ 1.85 Lakhs)**
Status: **Completed**
- Title: **"Machine learning-based methods for protein-protein interaction prediction"**
Role: **Principal Investigator**, Duration: 6 Months (August, 2014 to Jan, 2015)
Funding Agency: **Jamia Millia Islamia (under Innovative Research Activity), (₹ 1.0 Lakh)**
Status: **Completed**

PHD GUIDANCE

S.No.	Name of the PhD Candidate	Thesis Title	Status
1.	Nisar Iqbal Wani	Connecting Transcriptional Regulatory Networks with miRNA Regulatory Modules: An Integrative Analysis of Gene Regulatory Networks	Awarded (2020)
2.	Sahar Qazi	<i>In silico</i> Study of POTE and Analogous Activity of Oncologic Medicaments in Ovarian Cancer	Awarded (2022)
3.	Tarun Kumar Gupta	Optimization of ANN Architecture using Nature-Inspired Techniques	Awarded (2023)
4.	Abdul Manazir (Under Visvesvaraya PhD Scheme)	Multi-Output Hybrid Genetic Programming Model for Efficient Prediction of Time Series Data	Awarded (2023)
5.	Almas Jabeen (Co-supervised)	Statistical Analysis of RNA-seq Data for Disease Signature Identification and Drug Discovery	Awarded (2023)
6.	Nripendra Kumar Singh	Dentomaxillofacial Image Analysis Using Deep Learning	Awarded (2024).
7.	Shaban Ahmad	AI-based Predictive Modelling and Molecular Enumeration against Lung Cancer	Awarded (2025)
8.	Nagmi Bano	AI and Molecular Enumeration Techniques to Overcome Multidrug Resistance (MDR)	Ongoing
9.	Ashar Sayeed	Radiomics-Based Predictive Modeling of Cancer Progression Using Advanced Image Processing Techniques	Ongoing

CONTRIBUTIONS TO MOOC/Swayam/eGyanKosh PLATFORM

S.No.	Module Title	Course Title	Link
1.	Concept and Educational Uses of Sharing Images	ICT in Teacher Education	https://www.youtube.com/watch?v=lagbyOVvmKw
2.	Introduction to Bioinformatics	B.Sc. Biochemistry, IGNOU, New Delhi	https://egyankosh.ac.in/handle/123456789/81963

INVITED TALKS/SEMINAR / PRESENTATION DELIVERED

- [32] Delivered an invited talk on **“Software Development Life Cycle”** at Workshop on Project Development, organized by **Raj Narain College, Hajipur (Bihar)**, India on February 27, 2025.
- [31] Delivered an invited talk on **“The Role of AI and Machine Learning in Shaping the Future of Unani Medicine”** at the National Seminar on Innovations in Unani Medicine for integrative Health Solutions - A way forward, organized by **National Institute of Unani Medicine (NIUM)**, Bangalore, India on February 22, 2025.
- [30] Delivered an invited talk on **“Empowering Unani System of Medicine with AI and Machine Learning: Prospects & Challenges”** at Unani Day 2025 and International Conference, organized by **CCRM, Ministry of AYUSH**, India during February 11-12, 2025.
- [29] Delivered an invited talk on **“AI in FinTech and App Development”** at the **Five-Days Workshop on Recent Trends in AI, Fin-Tech, and Security**, organized by **School of Studies in Computer Science & IT, Pt. Ravishankar Shukla University**, Raipur during February 5-9, 2025.
- [28] Delivered an invited talk on **“Harnessing AI and Deep Learning in Molecular Design: Transforming Data into Therapeutics”** at the 12th Workshop on Bioinformatics and Drug Design: Artificial Intelligence (AI) and Machine Learning (ML) Based Methods, organized by **Dr. B. R. Ambedkar Center for Biomedical Research (ACBR), University of Delhi**, Delhi during December 18-20, 2024.
- [27] Delivered an invited talk on **“Mathematical modelling of biological networks”** at the Department of Mathematics and Statistics, Thammasat University (Rangsit Campus), Thailand on December 11, 2024.
- [26] Delivered an invited talk on **“Leveraging Data Science for Advancements in Bioinformatics Research”** in 6th International Conference on Soft Computing and its Engineering Applications (icSoftComp2024) held in Bangkok, Thailand during December 10-12, 2024.
- [25] Delivered an invited talk on **“Computational Intelligence and Emerging Technologies: Data Science in Bioinformatics”** in FDP on Emerging Technologies & Their Applications in Computational Sciences organized by Department of Computer Science & Engineering, Stanley College of Engineering & Technology for Women, Hyderabad on Oct 27, 2024.
- [24] Delivered an invited talk on **“AI and Machine Learning in Drug Design: From Data to Therapeutics”** in One-week SPARC Funded Workshop on Advanced Drug Designing and Computational Biology organized by Department of Chemistry, Jamia Millia Islamia on Sep 18, 2024.
- [23] Delivered an invited online talk on **“Creating Blogs, Websites, and Moderating Webinars”** in Faculty Induction Programme (Gurudakshita) organized by UGC-MMTTC, Pt. Pt. Ravishankar Shukla University, Raipur on Sep 10, 2024.
- [22] Delivered an invited online talk on **“Hands-On training on Using Generative AI for e-Content Development”** in Short Term Programme on e-Content Development organized by UGC-MMTTC, Pt. Pt. Ravishankar Shukla University, Raipur on Aug 07, 2024.
- [21] Delivered an invited online talk on **“Harnessing the Power of Generative AI for e-Content Development”** in Short Term Programme on e-Content Development organized by UGC-MMTTC, Pt. Pt. Ravishankar Shukla University, Raipur on Aug 07, 2024.
- [20] Delivered an invited online talk on **“Use of Free and Open Source Software/Hardware in Education”** in Short Term Programme on e-Content Development organized by UGC-MMTTC, Pt. Pt. Ravishankar Shukla University, Raipur on Aug 02, 2024.
- [19] Delivered an invited online talk on **“Artificial Intelligence in Unani System of Medicines: Core Concepts, Clinical Applications & Perspectives”** in CCRM, Ministry of AYUSH. Oct 18, 2022.
- [18] Delivered an invited online talk on **“Applications of Data Science in Bioinformatics”** in AICTE-ATAL sponsored one week FDP on "Data Science" organized by Department of Computer Science & IT, MANUU, Hyderabad during 22-26 Nov, 2021.
- [17] Delivered an invited online talk on **“Computational and Big Data Challenges in Bioinformatics Research”**, in **“3rd Two Week online Refresher Course in Computational and Mathematical Sciences”**, UGC-Human Resource Development Centre, Jamia Millia Islamia during Oct 22 to Nov 5, 2021.
- [16] Delivered an invited online talk on **“Computational and Big Data Challenges in Bioinformatics Research”**, in **“Two-Days National Conference on Computational Methods, Data Science and Applications”**, Department of Computer Science & IT, MANUU, Hyderabad during May 24-25, 2021.

- [15] Delivered an invited online talk on **“Soft Computing and Its Applications”**, in a Webinar organized by A.M. College, Gaya (Bihar) on May 23, 2021.
- [14] Delivered an invited online talk on **“How to Use Free/Open Source Software/Hardware in Education?”**, in **“3rd Online Faculty Induction Programme”**, UGC-Human Research Development Centre, Jamia Millia Islamia, New Delhi during December 28, 2020 to February 2, 2021.
- [13] Delivered an invited online talk on **“Computational and Big Data Challenges in Bioinformatics Research”**, in **“ATAL Online Faculty Development Programme on Data Sciences”**, Department of Computer Science, Aligarh Muslim University, Aligarh during October 26-31, 2020.
- [12] Delivered an invited online lecture on **“An Overview of Computational Systems Biology”**, in Summer School **“Bioescalator: Insights into Biotechnology, Plant Science and Bioinformatics**, IILM University, Greater Noida during May 11 – June 4, 2020.
- [11] Delivered an invited lecture on **“Role of Big Data, IoT and Machine Learning in Cyber Security”**, in National Conference on Recent Trends in Cyber Security, Pt. Ravishankar Shukla University, Raipur during February 5-7, 2020.
- [10] Delivered an invited lecture on **“Analysis of RNA-seq Data from Next-Generation Sequencing: Promises & Challenges”** in [7th International GastroIntestinal, Liver & Uro-Oncology Conference](#), Cairo, Egypt during May 10-15, 2018.
- [9] Delivered an invited lecture on **“Computational Analysis of RNA-seq Data: Opportunities & Challenges”** in [7th Annual International Ain Shams University Conference: Internationalization and Mobility](#), Cairo, Egypt during April 2-5, 2018.
- [8] Delivered an invited lecture on **“Data Mining Applications in Management”** in one day seminar on ‘IT and Operations’, organized by Bharatiya Vidya Bhavan's Usha and Lakshmi Mittal Institute of Management, New Delhi on April 2, 2016.
- [7] Delivered an invited lecture on **“Data Storage and Analysis using MS-Access and Google Docs”** in ICSSR Training Program on ‘Research Methodology Course for Ph.D. Students in Social Sciences’, held at GIS Lab of the Department of Geography, Jamia Millia Islamia, New Delhi during March 13-24, 2015.
- [6] Delivered a Ph.D. pre-submission seminar on **“Soft computing approaches for modelling biological networks”** at the Department of Computer Science, Jamia Millia Islamia on 29th January, 2014.
- [5] Delivered an invited lecture on **“Computational Systems Biology: Overview & Recent Developments”** in CEP Course on **“Advances in Soft-Computational Technique for Image Processing for Defence Application”** held at INMAS, DRDO, New Delhi during Oct 28 –Nov 1, 2013.
- [4] Delivered an invited lecture on **“Artificial Intelligence Based Techniques for Weather Forecasting”** in UGC Sponsored National Conference on Education and Research Scenario of Mathematical and Computer Science, held at Raipur during Jan 29-30, 2013.
- [3] Delivered a lecture on **“Bioinformatics Toolbox for Matlab”** in the Workshop on Bioinformatics Infrastructure & Frontiers (BIF’12) held during 13-14 March, 2012 at the Department of Computer Science, Jamia Millia Islamia.
- [2] Delivered a seminar presentation on **“How to write a research paper?”** at the Department of Computer Science, Jamia Millia Islamia during Pre-Ph.D. course work, 2011.
- [1] Delivered a seminar presentation on **“Soft computing approaches for modelling biological networks: a literature review report”** at the Department of Computer Science, Jamia Millia Islamia on 11th May, 2011 for the partial fulfilment of Pre-Ph.D. course work.

PAPER PRESENTATION

- [11] Presented a paper entitled **“LSTM-GRN: A Deep Learning Model for the Prediction of Gene Regulatory Networks from Single-Cell Data”** at 6th International Conference on Soft Computing and its Engineering Applications (icSoftComp2024) held in Bangkok, Thailand during December 10-12, 2024.
- [10] Presented a paper entitled **“GRNIP: A Java Package for Inferring Gene Regulatory Networks from Gene Expression Profiles”** in [International Applied Bioinformatics Conference 2021](#) (IABC-21), Istanbul, Turkey during June 23-24, 2021.
- [9] Presented a paper entitled **“Machine Learning Based Outlook for the Analysis of SNP-SNP Interaction for Biomedical Big Data”** in International Conference on Data Science, Machine Learning & Applications (ICDSMLA 2019), Hyderabad during March 29-30, 2019.
- [8] Presented a paper **“Protein features identification for machine learning-based prediction of protein-protein interactions”** in International Conference on Information, Communication and Computing Technology (ICICCT-2017), New Delhi, on May 13, 2017.

- [7] Presented a paper **"Prediction of cardiovascular disease using ensemble learning"** in International Conference on Mathematics & Computer Science-2017 (ICMSC-2017), Bangalore, during February 16-18, 2017.
- [6] Presented a paper **"M5 Model Tree and Gene Expression Programming for the Prediction of Metrological Parameters"** in IEEE 2015 International Conference on Computers, Communications, and Systems (ICCCS-2015), Kanyakumari, India during Nov 2-3, 2015.
- [5] Presented a paper **"Ant Colony Optimization for Inferring Key Gene Interactions"** in 9th INDIACom-2015, 2nd International Conference on Computing for Sustainable Global Development, New Delhi during March 11-13, 2015.
- [4] Presented a paper **"Reverse engineering of genetic regulatory networks using clustering technique"** in International Conference on Technological Advancement and Research (ICTAR-2013), Goa, India during December 18-19, 2013.
- [3] Presented a paper **"Reconstruction of gene regulatory network of colon cancer using information theoretic approach"** in 4th International Conference CONFLUENCE-2013, Noida during Sept 26-27, 2013.
- [2] Presented a paper **"Soft Computing Approach for Modeling Genetic Regulatory Networks"** in 2nd International Conference on Artificial Intelligence, Soft Computing and Applications, Chennai during July 13-15, 2012.
- [1] Presented a paper **"A Comprehensive Study of CRM through Data Mining Techniques"** at the National Conference; NCCIST-2011 held on September 09, 2011 at Apeejay School of Management, New Delhi.

SEMINARS / CONFERENCES / WORKSHOPS ATTENDED

- [28] **Nurturing Future Leadership Programme** at MMTTC, IIT-ISM, Dhanbad, Jharkhand [Oct 21-25, 2024]
- [27] **NEP Orientation & Sensitization Programme** at MMTTC, Jamia Millia Islamia, New Delhi [Mar 4-14, 2024]
- [26] **International Webinar Series** organized by **MIR Lab (USA)** [Jul 20 to Aug 14, 2020]
- [25] **2nd 2-Weeks Refresher Course in Computational & Mathematical Sciences** at UGC-HRD Center, Jamia Millia Islamia, New Delhi [Feb 7-20, 2020]
- [24] **One-Week FDP on Data Science and Big Data Analytics** organized by ICT Academy at DAV Centenary College, Faridabad [Feb 12-16, 2019]
- [23] **1st 3-Weeks Refresher Course in Climate Change (Interdisciplinary)** at UGC-HRD Center, Jamia Millia Islamia, New Delhi [Feb 20 to Mar 14, 2017]
- [22] Attended one-day **'International Seminar on Cloud Computing and Distributed Systems'** organized by Department of Computer Science, Jamia Millia Islamia, New Delhi, [December 30, 2016]
- [21] One-day **'National Seminar on Recent Trends in Computer Science'** organized by Department of Computer Science, Jamia Millia Islamia, New Delhi, [March 30, 2016]
- [20] 3-days **'National Instructional Workshop on Cryptology'** organized by Department of Computer Science, Central University of Rajasthan, [April 6-8, 2016]
- [19] TEQIP II Sponsored **One-Week FDP on Optimization Techniques using Nature Inspired Algorithms for Engineering Applications** at Rajasthan Technical University, Kota [Jan 19-23, 2015]
- [18] 110th **4-Weeks Orientation Programme** at Academic Staff College, Jamia Millia Islamia, New Delhi [Nov 11 to Dec 8, 2014]
- [17] 4th **3-Weeks Refresher Course in Basic Sciences (Interdisciplinary)** at Academic Staff College, Jamia Millia Islamia, New Delhi [May 12 to June 2, 2014]
- [16] International Conference Technological Advancement and Research (**ICTAR-2013**), Goa International Centre, Goa, India [December 18-19, 2013].
- [15] International Conference **CONFLUENCE-2013: The Next Generation Information Technology Summit**, Amity University, Noida [Sept 26-27, 2013].
- [14] **XXIV Annual Bioinformatics Coordinator's Meeting** organized by **Department of Biotechnology**, Ministry of Science & Technology, Govt. of India at Lucknow [Feb.3-4, 2013].
- [13] **Faculty Development Program (FDP)** organized by **Tata Consultancy Services (TCS)** under Academic Interface Program at BVICAM, New Delhi [July 21, 2012]
- [12] **International Conference on Artificial Intelligence, Soft Computing and Applications (AIAA-2012)**, Chennai [July 13-15, 2012]
- [11] **International School on Networks in Biology, Social Science and Engineering** organized by IMI, Indian Institute of Science, Bangalore [July 02-11, 2012]

- [10] **Eight-weeks Indian Academy of Sciences (IASc-INSANA-SI) Summer Research Fellowship Programme** and worked at IIT Bombay [May 01–Jun 30, 2012].
- [9] **Science Academies Workshop On Frontiers in Science & Engineering**, jointly organized by Indian National Science Academy (INSA) and University of Delhi [February 17-18, 2012]
- [8] Workshop on **“Green Computing/IT”** delivered by Prof. Sartaj Sahini organized by Faculty of Engg. & Tech., Jamia Millia Islamia [December 8, 2011]
- [7] National Conference on **“Challenges in Information Systems & Technology: Computational Techniques & Business Intelligence”** organized by Apeejay School of Management, New Delhi [September 09, 2011]
- [6] Symposium on **“R & D in Computer Science”** organized by Department of Computer Science, Jamia Millia Islamia, New Delhi [March 13, 2011]
- [5] Workshop on **“Emerging Trends in ICT- based Learning”**, CIT, Jamia Millia Islamia [21st March 2011]
- [4] National Conference on **“Sustainable Development and Management of Information Technology in Universities & Colleges (SUDMIT-2010)”** organised by Centre for Information Technology, Jamia Millia Islamia, New Delhi [March 25-26, 2010]
- [3] Conference on **“Sustainable Development and Management of Information Technology in Universities & Colleges”**, Centre for Information Technology, Jamia Millia Islamia, New Delhi [Feb 26-27, 2008]
- [2] Workshop on **“Web 2.0 in Education”** organised by Centre for Information Technology, Jamia Millia Islamia, New Delhi [Nov 4, 2008]
- [1] Workshop on **“IT for All”**, Centre for Information Technology, Jamia Millia Islamia, New Delhi [Oct 31 - Nov. 1, 2007]

RESEARCH COLLABORATORS

- [Debmalya Barh](#), Universidade Federal de Minas Gerais (UFMG), Brazil.
- **Kushagra Khanna**, UCSI University, Malaysia.
- [Surender Singh](#), All India Institute of Medical Sciences (AIIMS), New Delhi
- [Hemant Gautam](#), ICMR-National Institute of Pathology, New Delhi
- [Dhruv Kumar Nishad](#), INMAS, DRDO, New Delhi.
- [Ashok Sharma](#), All India Institute of Medical Sciences (AIIMS), New Delhi
- [Gautam Sharma](#), All India Institute of Medical Sciences (AIIMS), New Delhi
- [M.I. Siddiqi](#), CSIR-Central Drug Research Institute, Lucknow
- [Meryam Sardar](#), Deptt. Of Biosciences, Jamia Millia Islamia, New Delhi
- [Saurabh Verma](#), ICMR-National Institute of Pathology, New Delhi

RESEARCH FELLOWSHIPS / HONOURS

- **Session Chair:** Chaired a technical session at 6th International Conference on Soft Computing and its Engineering Applications (icSoftComp2024) held in Bangkok, Thailand during December 10–12, 2024.
- **Session Chair:** Chaired a technical session at First International Interdisciplinary Science Congress: Young Scholar’s Meet (I-ISC-2024), Ramanujan Block, CIRBSc, Jamia Millia Islamia on 9 October 2024.
- **Session Chair:** Chaired a technical session at National Conference on Recent Trends in Cyber Security, Pt. Ravishankar Shukla University, Raipur during February 5-7, 2020.
- **Session Chair:** Chaired a technical session in Interdisciplinary Science Conference: Big Data and Computational Biology held at CIRBSc, Jamia Millia Islamia during October 21-22, 2019.
- **Session Chair:** Chaired a technical session in IEEE sponsored conference Confluence-2019 held at Amity University, U.P. during March 10-11, 2019.
- **Session Chair:** Chaired a technical session in DBT-BIF 6th National Workshop on Advances in Computational Biology & Bioinformatics (ACBB-2015) held at DCS, JMI during Feb 27-28, 2015.
- **Session Chair:** Chaired a technical session in UGC Sponsored National Conference on Education and Research Scenario of Mathematical and Computer Science, held at Raipur during Jan 29-30, 2013.
- **Session Chair:** Chaired a technical session in 2nd International Conference on Artificial Intelligence, Soft Computing and Applications, Chennai during July 13-15, 2012.

- Received **Indian Academy of Sciences** (IASc-INSa-NASi) **Summer Research Fellowship** for two months and worked at IIT Bombay during May 01 – June 30, 2012.

MEMBERSHIP OF PROFESSIONAL BODIES / COMMITTEES

- **Life Member**, Computer Society of India (CSI) (Member ID: I1060359)
- **Life Member**, Soft Computing Research Society (SCRC).
- **Member**, Association for Computing Machinery (ACM), USA (Member ID: 8121039)
- **Conference Review Committees / PCM/TPC** – WeST-2013, AIAA-2013, ACITY-2013, [AISC-2014](#), [ICCSB-2014](#), [ICSC-2015](#), [ICIUS 2015](#), [AIAA-2015](#), [GTIE-2016](#), [ICGCET-2016](#), [INDIACom-2017](#), [ICICCT-2017](#), [ICICCT-2018](#), [ICICCT-2019](#), [ICETIT-2019](#), ICICCT-2020, [AISE-2020](#), [AIS2C2-2022](#), [ICAAAIML-2022](#), [ICICCT-2023](#), [ICDT-2023](#), [IWBBIO-2013](#), [ICDT-2023](#), [RICE-2023](#), [ICECI 2023](#), [IWBBIO-2014](#), [ICONIP-2024](#)

SCIENTIFIC RESEARCH PROJECT REVIEWER

- The Agence Nationale de la Recherche (ANR), France.
- Science and Engineering Research Board (SERB), New Delhi, India.
- Indian Council for Medical Research (ICMR), New Delhi, India

EDITOR/EDITORIAL BOARD MEMBER

- **Academic Editor**, [Peerj Computer Science](#)
- **Academic Editor**, [PLoS ONE](#)
- **Guest Editor**, [npj Precision Oncology](#)
- **Guest Editor**, [JoVE \(Journal of Visualized Experiments\)](#)
- **Guest Editor**, [Natural Product Communications](#)
- **Guest Editor**, [Mini-Reviews in Medicinal Chemistry](#)
- **Editorial Board Member**, [BMC Artificial Intelligence](#).

INVITED REVIEWER ([PUBLONS](#))

- ACM/IEEE Transactions on Computational Biology & Bioinformatics, [IEEE](#)
- Applied Soft Computing, [Elsevier](#)
- Bioinformatics, [Oxford University Press](#)
- BMC Bioinformatics
- Briefings in Bioinformatics, [Oxford University Press](#)
- Computational Biology and Chemistry, [Elsevier](#)
- Current Bioinformatics, [Bentham Science Publishers](#)
- Database, [Oxford University Press](#)
- Expert Systems, [Wiley](#)
- Heredity, [Nature](#)
- IEEE Access, [IEEE](#)
- IEEE Transactions on Fuzzy Systems, [IEEE](#)
- IET Systems Biology, [IET](#)
- Informatica
- Int. J. of Business Intelligence and Data Mining, [Inderscience](#)
- Intelligent Automation & Soft Computing, [Taylor & Francis](#)
- International Journal of Bioinformatics Research and Applications, [Inderscience](#)
- Journal of Algorithms and Computational Technology, SAGE.
- Natural Product Communication, [Sage Publications](#)
- Neural Computing and Applications, [Springer](#)
- Neural Processing Letters, [Springer](#)
- Nucleic Acid Research, [Oxford University Press](#)

- Pakistan Journal of Biotechnology
- PeerJ Computer Science
- SpringerPlus, [Springer](#)

COURSES TAUGHT

- Advance Java / Internet Technologies (J2EE)
- Algorithm Fundamentals
- Artificial Intelligence
- Bioinformatics Fundamentals
- Core Java / J2SE
- Web-based Programming
- Next-Generation Sequencing Data Analysis
- Object-oriented Programming
- Operating Systems
- Programming & Problem Solving
- Structural Bioinformatics
- Systems Biology

OTHER ACADEMIC/ADMINISTRATIVE RESONSIBILITIES

- **Elected Member of Academic Council, Jamia Millia Islamia**, [2022-2025].
- **Mess Warden (Hostel)**, Hall of Boys' Residence–Campus 'B', Jamia Millia Islamia [Jul'2022-Dec'23].
- **Convener (Curriculum Committee)**, Department of Computer Science, Jamia Millia Islamia [Jan, 2023].
- **IQAC Co-Coordinator**, Department of Computer Science, Jamia Millia Islamia [Jan, 2023].
- **Coordinator**, Departmental Library, Jamia Millia Islamia [Jul, 2022 – till date].
- **UG Course Coordinator**, Department of Computer Science, Jamia Millia Islamia [Jul, 2022 – till date].
- **Co-coordinator**, Bioinformatics Infrastructure Facility (BIF), Department of Biotechnology (DBT), Govt. of India [May'2019 – Mar'2020]
- **Programme Co-ordinator**, MSc (Bioinformatics) Programme, Jamia Millia Islamia [May'2019 – June'2020]
- **Convener**, Board of Studies/Department Faculty Committee, Department of Computer Science, JMI [May'2019 – June'2019].
- **Member**, Technical Committee for Purchasing/Upgrading University Firewall & Internet Security, Jamia Millia Islamia [2019]
- **Observer & Key Handler**, Jamia Millia Islamia School Entrance Exam, 2019.
- **Mess Warden (Hostel)**, Hall of Boys' Residence–Campus 'B', Jamia Millia Islamia [Jul'2018-Jul'2019].
- **Warden (Hostel)**, Hall of Boys' Residence – Campus 'B', Jamia Millia Islamia [Jul'2016-Jun'2017].
- **Coordinator, Departmental Library**, Department of Computer Science, JMI [Jul'2014-Sep'2017].
- **Convener**, Board of Studies/Department Faculty Committee, Department of Computer Science, JMI [May'2015-Sep'2017].
- **Coordinator**, Department Curriculum Committee [2016].
- **Member**, Board of Studies, Department of Computer Science, JMI since Dec'2010
- **Coordinator**, PGDCA Programme [Jul'2012 to Jul'2014]
- **Member**, Bioinformatics Research Facility [2011-2013]
- **Member**, Departmental Lab/Purchase Committee [2012-2013]
- **Member**, Departmental Examination Committee [2013]
- **Member**, Subject Association since [Mar'2011 to Feb'2016]
- **Member**, Moderation Committee for M.Sc. Bioinformatics, PGDCA and B.Sc.
- **Member** – Organizing Committee of Workshop on BIF'12 organized during Mar 13-14, 2012
- **Member**, Syllabus Design/Revision Committee for B.A./B.Sc. Credit-Based System, 2012
- **Document Verification Officer** during MCA/PGDCA admission [Jun 24-28, 2011]
- Nominated as **"Inspired Faculty"** of the Department, Jamia Millia Islamia.

- **Internal/External Examiner, Evaluator** – MCA, M.Sc.(Bioinformatics), M.Sc. Tech, PGDCA, B.Sc.
- **Manager – Table Tennis Team**, F/o Nature Sciences, JMI in 2015 & 2016 Inter-Faculty Tournament.
- **Co-Convenor** – DBT-BIF 6th National Workshop on Advances in Computational Biology & Bioinformatics (ACBB-2015) held at DCS, JMI during Feb 27-28, 2015.
- **Tabulator**, Exam Branch, Jamia Millia Islamia.
- **Monitoring Observer**, DMAT-2015 Re-Examination, conducted by Admission & Fee Regulatory Committee (AFRC), Bhopal, M.P.
- **Member** – Hospitality Committee of Annual Convocation 2016, Jamia Millia Islamia.

ACADEMIC PROJECTS GUIDED

- Project guided at Post-Graduate level of various universities like JMI, Jamia Hamdard, IGNOU, Amity University, Ain Shams University (Cairo) = 150+, selected dissertation titles are available at www.kraza

PRACTICAL EXPERTISE

Operating System	LINUX, MS-Windows , Android
Web Development Tools	J2EE (Servlet, JSP, EJB, JMS, CORBA), Struts, PHP, AJAX, Dreamweaver, Eclipse, etc.
Web Servers/Containers	Apache Tomcat, JBoss, WAMP/XAMP
Databases	Oracle, SQL Server, MySQL
Programming Languages	C, C++, J2SE, J2EE
Graphics & Animation Tools	Photoshop, CorelDraw, Inkscape
Mathematical/Data Mining/ Machine Learning Tools	R, Matlab, Weka, RapidMiner, Neuro Solutions, GPDotNet, GeneXProTools, SPSS, etc.,
Bioinformatics Tools	BLAST, EMBOSS, Clustal Omega, MEGA, Phylip, GNA, Cytoscape, Pymol, Galaxy, CellDesigner, GEO2R, Gene Ontology based Enrichment Analyzer, NGS Tools: SRA Toolkit, Bowtie2, Cufflink, edgeR, GATK, etc.

PERSONAL DETAILS

Father's Name	Late Abdul Jabbar Quais
Mother's Name	Late Zulekha Khatoon
Marital Status	Married
Nationality/Sex	Indian/Male
Languages Known	English, Hindi, Urdu and basic Arabic

REFEREES

- **Prof. Surender Singh**
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