

## DETAILED RESUME: PROF. RAVINS

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### WORK EXPERIENCE

1. **(From 14-June-2023 to till date)** As **Professor** in Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi-110025, India.
2. **(From 15-Dec-2022 to 13-June-2023)** As **Associate Professor** in Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi-110025, India.
3. **(From 06-Feb-2009 to 15-Dec-2022)** As **Assistant Professor** in Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi-110025, India.
4. **(From 02-Aug-2008 to 06-Feb-2009)** As **Ad-hoc Lecturer** in Maharaja Agrasen College, Vasundhara Enclave, Delhi-110096 (University of Delhi), India.

### OTHER MAJOR RESPONSIBILITIES IN THE UNIVERSITY

1. **(From December 2024 to till date)** Member, Working Committee IQAC, Jamia Millia Islamia, New Delhi.
2. **(From November 2024 to till date)** Member (as a President of Athletics Club), Sport Committee, Jamia Millia Islamia, New Delhi.
3. **(From March 2023 to December 2024)** Member, Core Committee IQAC, Jamia Millia Islamia, New Delhi.
4. **(From November 2021 to March 2023)** Coordinator, Internal Quality Assurance Cell (IQAC), Jamia Millia Islamia, New Delhi.
5. **(From 30-July-2019 to November 2021)** Hony. Asst. Director, Internal Quality Assurance Cell (IQAC), Jamia Millia Islamia, New Delhi.
6. **(From 16-July-2017 to 15 June-2018)** Hony. Deputy Director, Internal Quality Assurance Cell, (IQAC), Jamia Millia Islamia, New Delhi.
7. **(From 2013 to till date)** The Timetable In-charge in Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi.

### RESEARCH AREA AND INTERESTS

1. Computational Complexity and Network Sciences.
2. Development of algorithms for Network Community Detection and Comparison.
3. Identification of candidate genes from high throughput data and detection of their targets using Network Approach.
4. Mathematical Modelling for Dynamics of Infectious Population.

### COURSES TAUGHT

- Basic Applied Mathematics for Physical Sciences/ Differential Equations
- Coordinate Geometry
- Analysis and Linear Algebra
- Computational and Discrete Mathematics
- Linear Programming Problem and Game Theory
- Biostatistics/ Mathematical and Statistical Techniques/ Data Analysis Techniques
- Mathematics for Biologists
- Research Methodology
- Numerical Methods and Its program in C

- Programming in C and Bioinformatics
- Systems Biology/ Graph Theory and Biological Network
- Introduction programming to MATLAB

#### TECHNICAL SKILLS: Programming Languages and Softwares

C, C++, LISP, PROLOG, MATLAB, R Programming, MS-Office, Latex, mDraw and Cytoscape (Networks Drawing Software), Motif's finder Softwares (M-finder, FANMOD).

#### ACADEMIC DETAILS

Year	Degree/Exam	Board/ Institution /University Name
2010-2014	Ph. D.	Jamia Millia Islamia, New Delhi (A Central University)
2006-2008	M.Sc. in Mathematics	Indian Institute of Technology, Delhi (IIT Delhi)
2003-2006	B.Sc. (Hons) Mathematics	Jamia Millia Islamia, New Delhi (A Central University)

#### CERTIFICATIONS

- Qualified **LS-NET in Mathematics** (Lecturer-ship National Eligibility Test) Examination held on **December-2007** conducted by CSIR New Delhi.
- Qualified **JRF-NET in Mathematics** (Junior Research Fellowship National Eligibility Test) Examination held on **June-2008** conducted by CSIR New Delhi.

#### RESEARCH PROJECTS

1. Research Project entitle "**Identification of key regulatory elements in Pan-cancer via novel network-based module detection algorithms**" sponsored by Science and Engineering Research Board (SERB), Govt. of India, of Amount Rs. 28,77,353/- for the duration of three years (02 February 2024- 01 February 2027).
2. Research Project entitle "**Study of Network Comparison Methods and Their Application to Biological Networks**" sponsored by Science and Engineering Research Board (SERB), Govt. of India, of Amount Rs. 23,10,000/- for the duration of four years (15 February 2017- 14 February 2021).
3. Research Project entitled "**To evaluate the robustness of specific hubs in the transcriptional regulatory network (TRN) of Mycobacterium Tuberculosis**" under **Innovative Research Activities** from Jamia Millia Islamia, New Delhi, and Amount Rs. 1,00,000/- for duration six months (15 July 2014 - 14 January 2015).

#### PUBLISHED ARTICLES: COMMUNITY DETECTION ALGORITHMS

1. [Pure expansion-based local community detection; Abhinav Kumar, Pawan Kumar, & Ravins Dohare, \*International Journal of Data Science Analytics\*, vol. 18, page 317-335 \(2024\). IF: 3.4](#)
2. [Revisiting neighbourhood proximity-based algorithm for overlapping community detection in weighted networks, Abhinav Kumar, Pawan Kumar\\*, Ravins Dohare\\*; \*Social Network Analysis and Mining\*, volume 14, art no. 105 \(2024\). IF: 2.8](#)
3. [An interaction-based method for detecting overlapping community structure in real-world networks; Pawan Kumar, Ravins Dohare\\*, \*International Journal of Data Science and Analytics\*, Volume 14, Issue no. 1, 27-44 \(2022\). IF: 3.4](#)
4. [Formalising and Detecting Community Structures in Real World Complex Networks; Pawan Kumar, Ravins Dohare\\*, \*Journal of System Science and Complexity\*, Volume 34, Issue 1, Pages 180-205 \(2021\). <https://rdcu.be/b93fU> IF: 2.6](#)

5. [A neighborhood proximity-based algorithm for overlapping community detection in weighted networks](#), Pawan Kumar, **Ravins Dohare\***, *Frontiers of Computer Science*, Volume 13, Issue 6, Page 1353-1355 (2019). **IF: 3.4**

#### **PUBLISHED ARTICLES: NETWORK BASED ANALYSIS OF GENE EXPRESSION DATA**

6. [Nitesh Shriwash, Ayesha Aiman, Prithvi Singh, Seemi Farhat Basir, Anas Shamsi, Mohammad Shahid, Ravins Dohare, Asimul Islam, Understanding the role of potential biomarkers in attenuating multiple sclerosis progression via multiomics and network-based approach](#). *PLoS ONE* 19(12): e0314428 (2024).
7. [Alvea Tasneem, Manish Singh, Prithvi Singh & Ravins Dohare; Multi-omics and \*in-silico\* approach reveals AURKA, AURKB, and RSAD2 as therapeutic biomarkers in OSCC progression](#), *Journal of Biomolecular Structure and Dynamics*, Available online 5 Dec 2024.
8. [Tasneem, A., Sharma, A., Syed, M.A. et al. Transcriptomic analysis delineates potential regulatory network as therapeutic alternatives in chronic myeloid leukemia](#). *Egyptian Journal of Medical Human Genetics* 25, 145 (2024).
9. [Prithvi Singh, Gulnaz Tabassum, Mohammad Masood, Saleha Anwar, Mansoor Ali Syed, Kapil Dev, Md. Imtaiyaz Hassan, Mohammad Mahfuzul Haque, Ravins Dohare, Indrakant Kumar Singh; Investigating the role of prognostic mitophagy-related genes in non-small cell cancer pathogenesis via multiomics and network-based approach](#), *3 Biotech* 14:273 (2024).
10. [Identification of novel biomarkers and potential molecular targets for uterine cancer using network-based approach; Rubi Solanki, Md Zubair Malik, Bhavya Alankar, Farhan Jalees Ahmad, Ravins Dohare, Ritu Chauhan, Prashant Kesharwani, Harleen Kaur; Pathology - Research and Practice; vol. 260, art. No. 155431 \(2024\). IF: 2.9](#)
11. [Deciphering the landscape of lncRNA-driven ceRNA network in schizophrenia etiology; Anirban Mukhopadhyay, Prithvi Singh, Ravins Dohare\\* and B. K. Thelma; Egyptian Journal of Medical Human Genetics; vol. 25, issue 71 \(2024\). IF: 1.2](#)
12. [Uncovering the role of aquaporin and chromobox family members as potential biomarkers in head and neck squamous cell carcinoma via integrative multiomics and in silico approach; Rishabh Gurung, Mohammad Masood, Prithvi Singh, Prakash Jha, Anuradha Sinha, Swati Ajmeriya, Milin Sharma, Ravins Dohare\\*, Mohammad Mahfuzul Haque; Journal of Applied Genetics, vol \(2024\). IF: 2.0](#)
13. [Identification of potential therapeutic targets for COVID-19 through a structural-based similarity approach between SARS-CoV-2 and its human host proteins; Alvea Tasneem, Armiya Sultan, Prithvi Singh, Hridoy R. Bairagya, Hassan Hussain Almasoudi, Abdulfattah Yahya M. Alhazmi, Abdulkarim S. Binshaya, Mohammed Ageeli Hakami, Bader S. Alotaibi, Alaa Abdulaziz Eisa, Abdulaziz Saleh I. Alolaiqy, Mohammad Raghiful Hasan, Kapil Dev\\* and Ravins Dohare\\*; Frontier of Genetics, vol 15:1292280 \(2024\). IF: 2.8](#)
14. [Screening of miRNAs as prognostic biomarkers and their associated hub targets across Hepatocellular carcinoma using survival-based bioinformatics approach; Prithvi Singh, Rubi Solanki, Alvea Tasneem, Simran Suri, Harleen Kaur, Sapna Ratan Shah, Ravins Dohare\\*; Journal of Genetic Engineering and Biotechnology, vol. 22, art. No. 100337 \(2024\). IF: 3.6](#)
15. [Nitric oxide as a double-edged sword in pulmonary viral infections: Mechanistic insights and potential therapeutic implications; Mohammad Masood, Prithvi Singh, Daaniyaal Hariss, Faizya Khan, Daraksha Yameen, Seerat Siraj, Asimul Islam, Ravins Dohare, Mohammad Mahfuzul Haque; Gene Vol. 899, pp 148148 \(2024\). IF: 2.6](#)
16. [Exploring the role of miR-200 family in regulating CX3CR1 and CXCR1 in lung adenocarcinoma tumor microenvironment: implications for therapeutic intervention; Archana Sharma, Prithvi Singh, Rishabh Jha, Saleh A. Almatroodi, Faris Alrumaihi, Arshad Husain Rahmani, Hajed Obaid Alharbi, Ravins Dohare & Mansoor Ali Syed; Scientific Reports volume 13, Article number: 16333 \(2023\). IF: 4.6](#)
17. [Integrative multiomics and weighted network approach reveals the prognostic role of RPS7 in lung squamous cell carcinoma pathogenesis; Prithvi Singh, Archana Sharma, Bhupender Kumar, Anuradha Sinha, Mansoor Ali Syed & Ravins Dohare\\*, Journal of Applied Genetics \(2023\). IF: 2.0](#)

18. [Investigating the link between miR-34a-5p and TLR6 signaling in sepsis-induced ARDS; Mohd Junaid Khan, Prithvi Singh, Prakash Jha, Arnab Nayek, Md. Zubair Malik, Ganesh Bagler, Bhupender Kumar, Kalaiarasan Ponnusamy, Shakir Ali, Madhu Chopra, Ravins Dohare\\*, Indrakant Kumar Singh\\* & Mansoor Ali Syed\\*; 3 Biotech, volume 13, Article number: 282 \(2023\). IF: 2.8 , Link only-view: <https://rdcu.be/dhEh7>](#)
19. [Comprehensive multiomics and in silico approach uncovers prognostic, immunological, and therapeutic roles of ANLN in lung adenocarcinoma; Prithvi Singh, Shweta Arora, Amjad Beg, Sibasis Sahoo, Arnab Nayek, Mohd Mabood Khan, Anuradha Sinha, Zubair Malik, Fareeda Athar, Mohammad Serajuddin, Ravins Dohare\\*, Mansoor Ali Syed\\*; \*Functional & Integrative Genomics\*, volume 23, Article number: 223 \(2023\). IF: 2.9](#)
20. [Investigating the role of Kinesin family in lung adenocarcinoma via integrated bioinformatics approach, Gulnaz Tabassum, Prithvi Singh, Rishabh Gurung, Mohammed Ageeli Hakami, Nada Alkhorayef, Ahad Amer Alsaieri, Leena S. Alqahtani, Mohammad Raghbil Hasan, Summya Rashid, Atul Kumar, Kapil Dev\\*, Ravins Dohare\\*, \*Scientific Reports\*, volume 13, Article number: 9859 \(2023\). IF: 4.6](#)
21. [Breast cancer prognostic hub genes identified by integrated transcriptomic and weighted network analysis: a road towards personalized medicine, Prithvi Singh, Aanchal Rathi, Rashmi Minocha, Anuradha Sinha, Mohammad Mahfuzul Haque, Md Imtaiyaz Hassan\\*, and Ravins Dohare\\*; \*OMICS: A Journal of Integrative Biology\*, vol. 27\(5\), pp. 227-236 \(2023\). IF: 3.3](#)
22. [Combined Multiomics and In Silico Approach Uncovers PRKAR1A as a Putative Therapeutic Target in Multi-Organ Dysfunction Syndrome Prithvi Singh, Mohd Mohsin, Armiya Sultan, Prakash Jha, Mohd Mabood Khan, Mansoor Ali Syed, Madhu Chopra, Mohammad Serajuddin, Arshad Husain Rahmani, Saleh A. Almatroodi, Faris Alrumaihi, and Ravins Dohare\\*, \*ACS Omega\*, vol. 8 \(10\), pp. 9555–9568 \(2023\). IF: 4.1](#)
23. [Understanding the role of adipokines and adipogenesis family in hepatocellular carcinoma; Prithvi Singh, Rishabh Gurung, Armiya Sultan and Ravins Dohare\\*; \*Egyptian Journal of Medical Human Genetics\*, vol. 24, art no. 17 \(2023\). IF: 1.3](#)
24. [Combined transcriptomics and in-silico approach uncovers the role of prognostic biomarkers in hepatocellular carcinoma; Rubi Solanki, Prithvi Singh, Md Amjad Beg, Ravins Dohare\\*, Amit Kumar Verma, Farhan Jalees Ahmad, Bhavya Alankar, Fareeda Athar, Harleen Kaur\\*; \*Human Gene\*, vol 35, art no. 201154 \(2023\). IF: 0.7](#)
25. [Integrative Multiomics and Regulatory Network Analyses Uncovers the Role of OAS3, TRAFD1, miR-222-3p, and miR-125b-5p in Hepatitis E Virus Infection. Sonam Gupta; Prithvi Singh; Alvea Tasneem; Ahmad Almatroudi; Arshad Hussain Rahmani; Ravins Dohare; Shama Parveen; \*Genes\* vol. 14, pp 42 \(2023\). IF: 3.5](#)
26. [Unrevealing the prognostic genes in Lung Cancer and screened its targeted compounds, Aiman Mustaq, Prithvi Singh, Gulnaaz Tabassum, Taj Mohammad, Md Imtaiyaz Hassan, Mansoor Ali Syed, Ravins Dohare. \*Journal of Biomolecular Structure and Dynamics\*, In Press \(2022\). IF: 4.4](#)
27. [miR-495–3p regulates sphingolipid metabolic reprogramming to induce Sphk1/ceramide mediated mitophagy and apoptosis in NSCLC, Shweta Arora, Prithvi Singh, Gulnaz Tabassum, Ravins Dohare, Mansoor Ali Syed. \*Free Radical Biology and Medicine\*, volume 189: 71-84 \(2022\). IF: 7.4](#)
28. [Integrated transcriptomic and regulatory network analyses uncovers the role of let-7b-5p, SPIB, and HLA-DPB1 in sepsis, Mohd Mohsin, Prithvi Singh, Salman Khan, Amit Kumar Verma, Rishabh Jha, Mohammed A. Alsahli, Arshad Husain Rahmani, Saleh A. Almatroodi, Faris Alrumaihi, Nisha Kaprwan, Kapil Dev, Ravins Dohare\\* & Mansoor Ali Syed, \*Scientific Reports\*, volume 12, Article number: 11963 \(2022\). IF: 4.6](#)
29. [miR-16-5p regulates aerobic glycolysis and tumorigenesis of NSCLC cells via LDH-A/lactate/NF-κB signaling; Shweta Arora, Prithvi Singh, Gulnaz Tabassum, Ravins Dohare, Mansoor Ali Syed, \*Life Sciences\*, Volume 304: 120722 \(2022\). IF: 6.1](#)
30. [Differential gene expression and weighted correlation network dynamics in high-throughput datasets of prostate cancer; Taj Mohammad, Prithvi Singh, Deeba Jairajpuri, Lamya A. Al-Keridis, Nawaf Alshammari, Mohd Adnan, Ravins Dohare and Imtaiyaz Hassan, \*Frontiers in Oncology\*, Volume 12: 881246 \(2022\). IF: 4.7](#)

31. [Correlation of NTRK1 Downregulation with Low Levels of Tumor-Infiltrating Immune Cells and Poor Prognosis of Prostate Cancer Revealed by Gene Network Analysis; Arash Bagherabadi, Amirreza Hooshmand, Nooshin Shekari, Prithvi Singh, Samaneh Zolghadri, Agata Stanek, and Ravins Dohare, \*Genes\*, Volume 13, Issue no. 5, 840 \(2022\). IF: 3.5](#)
32. [Deciphering key genes and miRNAs associated with Hepatocellular carcinoma via network-based approach, Sachin Bhatt, Prithvi Singh, Archana Sharma, Ravins Dohare\\*, Shweta Sankhwar, Akash Sharma, Syed Mansoor Ali, \*IEEE/ACM Transactions on Computational Biology and Bioinformatics\*, Volume 9, Issue no. 2, 843-853 \(2022\). IF: 4.5](#)
33. [Integrative multiomics and in silico analysis revealed the role of ARHGEF1 and its screened antagonist in mild and severe COVID-19 patients; Prakash Jha, Prithvi Singh, Shweta Arora, Armiya Sultan, Arnab Nayek, Kalaiarasan Ponnusamy, Mansoor Ali Syed, Ravins Dohare\\*, and Madhu Chopra, \*Journal of Cellular Biochemistry\*, Volume 123, Issue no. 3, 673-690 \(2022\). IF: 4.0](#)
34. [Prediction of Putative Protein Interactions between Zika Virus and Its Hosts Using Computational Techniques; Surendra Kumar Sagar, Manoj Kumar, Prithvi Singh, Shweta Sankhwar, Ravins Dohare\\*, \*Journal of Communicable Diseases\*, Volume 53, Issue no. 4, 84-96 \(2021\). Scopus CiteScore: 0.2](#)
35. [Unravelling the role of hub genes associated with Cardio Renal Syndrome through an integrated bioinformatics approach; Mohd Murshad Ahmed, Prithvi Singh, Armiya Sultan, Ravins Dohare, Safia Tazyeen, Aftab Alam, Rafat Ali, Anam Farooqui, Nikhat Imam, Naaila Tamkeen, Romana Ishrat, \*Gene Reports\*, Volume 25, 101382 \(2021\). IF: 1.6](#)
36. [Comprehensive Integrative Analysis Reveals the Association of KLF4 with Macrophage Infiltration and Polarization in Lung Cancer Microenvironment; Shweta Arora, Prithvi Singh, Shaniya Ahmad, Tanveer Ahmad, Ravins Dohare, Saleh A. Almatroodi, Faris Alrumaihi, Arshad H. Rahmani, and Mansoor A. Syed., \*Cells\* Volume 10, Issue no. 8, 2091 \(2021\). IF: 6.0](#)
37. [Survival-Based Biomarker Module Identification Associated with Oral Squamous Cell Carcinoma \(OSCC\); Prithvi Singh, Arpita Rai, Amit K. Verma, Mohammed A. Alsahli, Arshad H. Rahmani, Saleh A. Almatroodi, Faris Alrumaihi, Kapil Dev, Anuradha Sinha, Shweta Sankhwar, and Ravins Dohare\\*. \*Biology\* Volume 10, Issue no. 8, 760 \(2021\). IF: 4.2](#)
38. [Revealing new therapeutic opportunities in hypertension through network-driven integrative genetic analysis and drug target prediction approach; Kavita Sharma, Prithvi Singh, Md Amjad Beg, Ravins Dohare\\*, Fareeda Athar, and Mansoor Ali Syed\\*. \*Gene\*, Volume 108, 145856, \(2021\). IF: 2.6](#)
39. [Identification of Robust Genes in Transcriptional Regulatory Network of Mycobacterium tuberculosis, Prithvi Singh, Mohd. Amir, Upasana Chaudhary, Fozail Ahmad, Sachin Bhatt, Shweta Sankhwar, Ravins Dohare\\*, \*IET Systems Biology\*, Volume 14, Issue 5, Page 292-296 \(2020\). IF: 2.3](#)
40. [A Systems View of the Genome Guardians: Mapping the Signaling Circuitry Underlying Oligonucleotide/Oligosaccharide-Binding \(OB\) Fold Proteins; Mohd. Amir, Aftab Alam, Romana Ishrat, Mohamed F. Alajmi, Afzal Hussain, Asimul, Islam, Faizan Ahmad, Md. Imtaiyaz Hassan and Ravins Dohare\\*, \*OMICS: A Journal of Integrative Biology\*, Volume 24, Issue 9, Page 518-530 \(2020\). IF: 3.3](#)
41. [Unravelling host-pathogen interactions: ceRNA network in SARS-CoV-2 infection \(COVID-19\), Shweta Arora; Prithvi Singh; Ravins Dohare\\*; Rishabh Jha; Mansoor Ali Syed\\*, \*Gene\*, Volume 762, Page 145057 \(2020\). IF: 3.5](#)
42. [Inhibition of miRNA-34a promotes M2 macrophage polarization and improves LPS-induced lung injury by targeting klf4, Mohd Junaid Khan, Prithvi Singh, Ravins Dohare, Rishabh jha, Arshad Husain Rahmani, Saleh A. Almatroodi, Shakir Ali, Mansoor Ali Syed\\*, \*Genes\*, Volume 11, Issue 9, Page 966 \(2019\). IF: 3.5](#)
43. [Transcriptomic analysis delineates potential signature genes and miRNAs associated with the pathogenesis of asthma, Prithvi Singh, Archana Sharma, Rishabh Jha, Shweta Arora, Rafiq Ahmad, Arshad Rahmani, Saleh A. Almatroodi, Ravins Dohare\\*, Mansoor Syed\\*, \*Scientific Reports\*, Volume 10, Page 1355 \(2020\). IF: 4.6](#)
44. [Unravelling the Role of miR-20b-5p, CCNB1, HMGA2 and E2F7 in Development and Progression of Non-Small Cell Lung Cancer \(NSCLC\), Shweta Arora, Prithvi Singh, Arshad Husain Rahmani,](#)



- [Saleh A. Almatroodi, Ravins Dohare\\*, Mansoor Ali Syed \\*, Biology, Volume 9, Issue 8, Page 201 \(2020\). IF: 4.2](#)
45. [Network-Based Identification of Signature Genes SPOCK1 and KLF6 Associated with Oral Submucous Fibrosis, Prithvi Singh, Arpita Rai, Shweta Arora, Shama Parveen, Sher Ali, Ravins Dohare\\*, Molecular and Clinical Oncology, Volume 12, Issue 4, Page 299-310 \(2020\). IF: 1.2](#)
  46. [Transcriptome Meta-Analysis Deciphers a Dysregulation in Immune Response-Associated Gene Signatures during Sepsis, Shaniya Ahmad, Prithvi Singh, Archana Sharma, Shweta Arora, Nitesh Shriwash, Arshad Husain Rahmani, Saleh A. Almatroodi, Kailash Manda, Ravins Dohare\\*, Mansoor Ali Syed\\*, Genes, Volume 10, Issue 12, Page 1005-1026 \(2019\). IF: 3.5](#)
  47. [Identification of Differentially Expressed Genes in Small and Non-Small Cell Lung Cancer based on Meta-Analysis of mRNA, Nitesh Shriwash, Prithvi Singh, Shweta Arora, Syed Mansoor Ali, Sher Ali, Ravins Dohare\\*, Heliyon, Volume 5, Issue 6, Page e01707 \(2019\). IF: 4.0](#)
  48. [Properties of Fluctuating Network and Self-Organization, Ravins and R. K. Brojen Singh\\*, Advanced Science, Engineering and Medicine, 5\(12\), 1331–1334 \(2013\). NA](#)

#### **PUBLISHED ARTICLES: MATHEMATICAL MODELLING AND SYSTEMS BIOLOGY**

49. [Vector-borne transmission dynamics model based on Caputo fractional-order derivative; Kapil Kumar, Mukesh Kumar Sharma, Sapna Ratan Shah and Ravins Dohare\\*; Indian Journal of Theoretical Physics, Volume 71 Nos. 3 & 4 \(2024\).](#)
50. [Efficacy of Venetoclax and Azacitidine for Targeting Leukemic Stem Cell in Acute Myeloid Leukemia; Priyanka Kasturia, Rohit Kumar Sharma, P Chaturvedi, Ravins Dohare\\* and Sapna Ratan Shah\\*; International Journal of Biology, Pharmacy and Allied Sciences, 13\(6\): 3072-3090 \(2024\).](#)
51. [Study the Effect of Drug “Statin” On Hepatic Lipid Metabolism Using System Biology Approach; Power System Technology; Jitendra Singh, Sahil Khan, Ravins Dohare\\*, Vol. 47 No. 4, pp 475-492 \(2023\).](#)
52. [Mathematical modeling in perspective of vector-borne viral infections: a review, Ramakant Prasad, Surendra Kumar Sagar, Shama Parveen and Ravins Dohare; Beni-Suef University Journal of Basic and Applied Sciences, Vol. 11, Pages 102 \(2022\). IF: 3.1](#)
53. [Caputo fractional order derivative model of Zika virus transmission dynamics; Ramakant Prasad, Kapil Kumar, Ravins Dohare\\*, Journal of Mathematics and Computer Science, Vol. 28, Issue 2, Pages 145-157 \(2023\). Scopus CiteScore: 1.9](#)
54. [Transmission dynamics of COVID-19 outbreak in India and effectiveness of self-quarantine: A phase-wise data driven analysis, Sahil Khan, Md. Wasim Khan, Narender Kumar, Ravins Dohare\\*, Shweta Sankhwar\\*; International Journal of Computer Application in Technology, Vol. 66 Issue 3-4, Pages 389-400 \(2021\). IF: 1.1](#)
55. [SIR-SI Mathematical Model for Zika Virus Progression Dynamics in India: A Case Study, Ravins Dohare, Manoj Kumar, Shweta Sankhwar, Narender Kumar, Surendra Kumar Sagar\\*, Jugal Kishore, Journal of Communicable Diseases, Vol. 53, Issue 2, Pages 100-104 \(2021\). Scopus CiteScore: 0.2](#)
56. [Comparative Transmission Dynamics and Optimal Controls for Chikungunya, Dengue and Zika Virus Infections, Narender Kumar, Shama Parveen, Ravins Dohare\\*, Letters in Biomathematics, Volume 6, Issue 2, Pages 1-14 \(2019\). Scopus CiteScore: 4.2](#)
57. [Temperature and Rainfall Dependent Mathematical Modeling for Progression of Zika Virus Infection, Narender Kumar, Shama Parveen, Ravins Dohare\\*, International Journal of Mathematical Modelling and Numerical Optimization, Volume 9, Issue 4, Pages 339-365 \(2019\). Scopus CiteScore: 1.4](#)
58. [Boundary Layer Flow Of Incompressible Fluid past an Inclined Stretching Sheet and Heat Transfer, Mamta Misra, Ravins Dohare and Naseem Ahmad; International Journal of Innovations in Engineering and Technology, Vol. 11, No. 2, Pages 19-23 \(2018\). NA](#)
59. [Boundary Layer Flow of Incompressible Fluid Past an Inclined Stretching Sheet; Ravins Dohare, Mamta Misra and Naseem Ahmad. International Journal of Trend in Research and Development \(IJTRD\), ISSN: 2394-9333, Volume 5 | Issue no. 2, Pages 779-762 \(2018\). NA](#)

60. [Progression dynamics of Zika fever outbreak in El Salvador during 2015–2016: a mathematical modeling approach](#), Narender Kumar, Mohd Abdullah, Md Imam Faizan, Anwar Ahmed, Hytham A Alsenaidy, **Ravins Dohare\***, and Shama Parveen\*, *Future Virology*, Vol. 12, No. 5, Pages 271-281 (2017). **IF: 3.1**
61. [Unsteady Visco-elastic Boundary Layer Flow past a stretching Plate and Heat Transfer](#), Naseem Ahmad and **Ravins\***, *Russian Journal of Mathematical Research. Series A*, 4(2), 46-55 (2016). **NA**
62. [Diffusional Drug Release from Cylindrical Matrices into a Finite Medium with Boundary Layer Effect](#), T. Shefeeq, Naseem Ahmad, **Ravins**, and R. K. Brojen Singh\*, *Advanced Science, Engineering and Medicine*, 6(9), 948-958 (2014). **NA**
63. [Switching p53 states by calcium: dynamics and interaction of stress systems](#), Md. Jahoor Alam, Gurumayum Reenaroy Devi, **Ravins**, Romana Ishrat, Subhash M. Agarwal and R. K. Brojen Singh\*, *Molecular BioSystems*, 9, 508-521 (2013). **IF: 2.9 (renamed as Molecular Omics)**
64. [Theoretical Modeling of Diffusional Release of a Dispersed Solute from a Cylindrical Polymeric Matrix](#), T. Shefeeq, Naseem Ahmad, **Ravins**, and R. K. Brojen Singh\*, *Journal of Nanoscience and Nanotechnology*, 12(9), 7167-7172 (2012). **IF: 1.354**
65. [Intercellular Synchronization of Coupled Smooth Muscle Cells via Ca<sup>2+</sup> Propagation](#) Md. Zubair Malik, Shahnawaz Ali, Md. Jahoor Alam, Gurumayum Reenaroy Devi, **Ravins**, Romana Ishrat, and R. K. Brojen Singh\*, *Journal of Nanoscience and Nanotechnology*, 12(11), 8303-8315 (2012). **IF: 1.354**
66. [The enhancement of stability of p53 in MTBP induced p53-MDM2 regulatory network](#), Md. J. Alam, N. Fatima, G. Reenaroy Devi, **Ravins** and R.K. Brojen Singh\*, *BioSystems*, 110(2), 74– 83 (2012). **IF: 1.6**

#### PUBLISHED ARTICLES: INTERDISCIPLINARY SCIENCES

67. [Global and Local Evolutionary Dynamics of Dengue Virus Serotype 1, 3 and 4](#); Arshi Islam, Farah Deebea, Bansidhar Tarai, Ekta Gupta, Irshad H Naqvi, Mohd. Abdullah, Ravins Dohare, Anwar Ahmed, Fahad N. Almajhdi, Tajamul Hussain and Shama Parveen, *Epidemiology & Infection*, vol. pp 1-44, (2023) (In Press). **IF: 4.2**
68. [Unravelling the role of telomere shortening with ageing and their potential association with diabetes, cancer, and related lifestyle factors](#), Amit Kumar Verma, Prithvi Singh, Fatimah A. Al-Saeed, Ahmed Ezzat Ahmed, Sunil Kumar, Ashok Kumar, Kapil Dev, Ravins Dohare. *Tissue and Cell*, volume 79, article no. 101925 (2022). **IF: 2.6**
69. [Investigation of conformational dynamics of Tyr89Cys mutation in protection of telomeres 1 gene associated with familial melanoma](#), Mohd Amir, Shahzaib Ahamad, Taj Mohammad, Deebea Shamim Jairajpuri, Gulam Mustafa Hasan, **Ravins Dohare**, Asimul Islam, Faizan Ahmad, Md Imtaiyaz Hassan, *Journal of Biomolecular Structure and Dynamics*, Volume 39, Issue 1, Pages 35-44 (2021). **IF: 4.4**
70. [Structure, function and therapeutic implications of OB-fold proteins: A lesson from past to present](#), Mohd Amir, Taj Mohammad, **Ravins Dohare**, Asimul Islam, Faizan Ahmad, and M. d Imtaiyaz Hassan. *Briefings in Functional Genomics*, elaa008 (2020). **IF: 4.3**
71. [Virtual high-throughput screening of natural compounds in-search of potential inhibitors for protection of telomeres 1 \(POT1\)](#), Mohd Amir, Taj Mohammad, Kartikay Prasad, Gulam Mustafa Hasan, Vijay Kumar, Ravins Dohare, Asimul Islam, Faizan Ahmad, Md Imtaiyaz Hassan, *Journal of Biomolecular Structure and Dynamics*, Volume 38, Issue 15, Page 4625-4634 (2020). **IF: 4.4**
72. [Structural Features of Nucleoprotein CST/Shelterin Complex Involved in the Telomere Maintenance and Its Association with Disease Mutations](#), Mohd Amir, Parvez Khan, Aarfa Queen, **Ravins Dohare**, Mohamed F Alajmi, Afzal Hussain, Asimul Islam, Faizan Ahmad, Imtaiyaz Hassan, *Cells*, Volume 9, Issue 2, Pages 359 (2020). **IF: 6.0**
73. [Impact of length of replication competent genome of hepatitis B virus over the differential antigenic secretion](#), Fatima Amir, Zaheenu Islam Siddiqui, Sabihur Rahman Farooqui, Ayesha Anwer, Saniya Khan, Md Iqbal Azmi, Mahboubeh Mehmankehah, **Ravins Dohare**, Luqman Ahmad Khan, Syed Naqui Kazim, *Journal of cellular biochemistry*, Volume 120 (10), Pages 17858-17871, (2019). **IF: 4.0**

74. [Investigating architecture and structure-function relationships in cold shock DNA-binding domain family using structural genomics-based approach](#), Mohd Amir, Vijay Kumar, **Ravins Dohare**, Md Tabish Rehman, Afzal Hussain, Mohamed F Alajmi, Hesham R El-Seedi, Hani Mutlak A Hassan, Asimul Islam, Faizan Ahmad, Md Imtaiyaz Hassan, *International journal of biological macromolecules*, Volume 133, Pages 484-494 (2019). **IF: 8.2**
75. [Investigation of deleterious effects of nsSNPs in the POT1 gene: a structural genomics-based approach to understand the mechanism of cancer development](#), Mohd Amir, Vijay Kumar, Taj Mohammad, **Ravins Dohare**, Afzal Hussain, Md Tabish Rehman, Perwez Alam, Mohamed F Alajmi, Asimul Islam, Faizan Ahmad, Md Imtaiyaz Hassan, *Journal of cellular biochemistry*, Volume 120, Issue 6, Pages 10281-10294 (2019). **IF: 4.0**
76. [Structural and functional impact of non-synonymous SNPs in the CST complex subunit TEN1: Structural genomics approach](#), Mohd Amir, Vijay Kumar, Taj Mohammad, **Ravins Dohare**, Md Tabish Rehman, Mohamed F Alajmi, Afzal Hussain, Faizan Ahmad, Md Imtaiyaz Hassan, *Bioscience reports*, Page 39, Issue 5, Pages BSR20190312 (2019). **IF: 4.0**
77. [Impact of Gln94Glu mutation on the structure and function of protection of telomere 1, a cause of cutaneous familial melanoma](#), Mohd Amir, Shahnawaz Ahmad, Shahzaib Ahamad, Vijay Kumar, Taj Mohammad, **Ravins Dohare**, Mohamed F Alajmi, Tabish Rehman, Afzal Hussain, Asimul Islam, Faizan Ahmad, Md Imtaiyaz Hassan, *Journal of Biomolecular Structure and Dynamics*, Volume 38, Issue 5, Pages 1514-1524 (2020). **IF: 4.4**
78. [In vitro cytotoxicity and interaction of noscapine with human serum albumin: Effect on structure and esterase activity of HSA](#), Neha Maurya, Jitendra Kumar Maurya, Upendra Kumar Singh, **Ravins Dohare**, Md Zafaryab, M Moshahid Alam Rizvi, Meena Kumari, Rajan Patel, *Molecular pharmaceuticals*, Volume 16, Issue 3, Pages 952-966 (2019). **IF: 4.9**
79. [Structural Analysis and Conformational Dynamics of STN1 Gene Mutations Involved in Coat Plus Syndrome](#), Mohd Amir, Taj Mohammad, Vijay Kumar, Mohammed F Alajmi, Md Tabish Rehman, Afzal Hussain, Perwez Alam, **Ravins Dohare**, Asimul Islam, Faizan Ahmad, Md Imtaiyaz Hassan, *Frontiers in Molecular Biosciences*, Volume 6, Article 41 (2019). **IF: 5.0**
80. [Sequence, structure and evolutionary analysis of cold shock domain proteins, a member of OB fold family](#), Mohd Amir, Vijay Kumar, **Ravins Dohare**, Asimul Islam, Faizan Ahmad, Md Imtaiyaz Hassan, *Journal of evolutionary biology*, Volume 31, Issue 12, Pages 1903-1917 (2018). **IF: 2.1**
81. [Structural insights into Rab21 GTPase activation mechanism by molecular dynamics simulations](#), Mohd Shahbaaz, Mohd Amir, Safikur Rahman, Gulam Mustafa Hasan, **Ravins Dohare**, Krishna Bisetty, Faizan Ahmad, Jihoe Kim, Md Imtaiyaz Hassan\*, *Molecular Simulation*, Vol. 44, No. 3, Pages 179-189 (2018). **IF: 2.1**
82. [Global distribution of NA1 genotype of respiratory syncytial virus and its evolutionary dynamics assessed from the past 11 years](#), Md Shakir Hussain Haider, Farah Deeba, Wajihul Hasan Khan, Irshad H Naqvi, Sher Ali, Anwar Ahmed, Shobha Broor, Hytham A Alsenaidy, Abdulrahman M Alsenaidy, **Ravins Dohare**, Shama Parveen\*, *Infection, Genetics and Evolution*, Volume 60, Pages 140-150 (2018). **IF: 4.4**
83. [BA9 lineage of respiratory syncytial virus from across the globe and its evolutionary dynamics](#), Md Shakir Hussain Haider, Wajihul Hasan Khan, Farah Deeba, Sher Ali, Anwar Ahmed, Irshad H Naqvi, **Ravins Dohare**, Hytham A Alsenaidy, Abdulrahman M Alsenaidy, Shobha Broor, Shama Parveen, *PloS one*, Volume 13(4), Pages: e0193525 (2018). **IF: 3.7**
84. [Hydrogen bonding-assisted interaction between amitriptyline hydrochloride and hemoglobin: spectroscopic and molecular dynamics studies](#), Neha Maurya, Jitendra Kumar Maurya, Meena Kumari, Abbul Bashar Khan, **Ravins Dohare** & Rajan Patel, *Journal of Biomolecular Structure and Dynamics*, Volume 35, Issue 6, Pages 1367-1380 (2017). **IF: 4.4**
85. [Effect of 1-methyl-3-octyleimidazolium chloride on the stability and activity of lysozyme: a spectroscopic and molecular dynamics studies](#), Meena Kumari, Neeraj Dohare, Neha Maurya, **Ravins Dohare** and Rajan Patel, *Journal of Biomolecular Structure and Dynamics*, Volume 35, Issue 9, Pages 2016-2030 (2017). **IF: 4.4**
86. [Evolutionary analysis of dengue serotype 2 viruses using phylogenetic and Bayesian methods from New Delhi, India](#), Nazia Afreen, Irshad H Naqvi, Shobha Broor, Anwar Ahmed, Syed N Kazim,



[Ravins Dohare, Manoj Kumar, Shama Parveen\\*](#), PLOS Neglected Tropical Diseases, 10(3): e0004511, (2016). IF: 3.8

#### BOOK/ BOOK CHAPTER IN EDITED BOOK PUBLISHED OR OTHER ARTICLES

1. [Souvik Guha, Gaurav Khanduri, Ravins Dohare \(2025\) Deep learning-based model for prediction of prognostic genes of breast cancer using transcriptomic data. Deep Learning in Genetics and Genomics, Volume 2: Advanced Applications, Pages 171-193.](#)
2. [Hussain T., Singh P., Kumar A., Ahmad N., Dohare R., Sankhwar S. \(2022\) Network-Based Identification of Module Biomarker Associated with Hepatocellular Carcinoma. In: Garg D., Jagannathan S., Gupta A., Garg L., Gupta S. \(eds\) Advanced Computing. IACC 2021. Communications in Computer and Information Science, vol 1528. Springer, Cham.](#)
3. [Kumar, Narender; Sankhwar, Shweta; Dohare, Ravins. \(2021\) Estimating the Effect Social Distancing in the Progression Dynamics of COVID-19. In: Raza K., Translational Bioinformatics Applications in Healthcare, 193, CRC Press.](#)
4. [Islam, Arshi; Parveen, Nazish; Haider, Md Shakir Hussain; Dohare, Ravins; Ahmed, Anwar; Ali, Sher; Parveen, Shama. \(2021\) Codon Based Characterization of S2 Subunit of Severe Acute Respiratory Syndrome-Related Coronaviruses. In: Parveen S., The COVID-19 Pandemic: Epidemiology, Molecular Biology and Therapy, 62, Bentham Science Publishers.](#)
5. [Bhatt S., Singh K., Dohare R.\\* \(2020\) Functional Module Detection in Gene Regulatory Network Associated with Hepatocellular Carcinoma. In: Pant M., Sharma T., Basterrech S., Banerjee C. \(eds\) Performance Management of Integrated Systems and its Applications in Software Engineering. Asset Analytics \(Performance and Safety Management\). Springer, Singapore.](#)
6. [Kumar N., Malhotra S., Rajora C., Dohare R.\\* \(2020\) RC-Network and Comm-Network for Improvement of Research Collaboration and Communication Among Delhi University Teachers. In: Pant M., Sharma T., Basterrech S., Banerjee C. \(eds\) Performance Management of Integrated Systems and its Applications in Software Engineering. Asset Analytics \(Performance and Safety Management\). Springer, Singapore.](#)
7. [Kumar P., Dohare R.\\* \(2020\) The Presence of Anti-community Structure in Complex Networks. In: Pant M., Sharma T., Basterrech S., Banerjee C. \(eds\) Computational Network Application Tools for Performance Management. Asset Analytics \(Performance and Safety Management\). Springer, Singapore.](#)

#### M. PHIL STUDENTS SUPERVISED

1. Robustness of Hubs and Community Structure in Biological Network, **Meenu Sharma**, M. Phil. in Inter. Basic Sciences (Bioinformatics), CIRBSC, JMI (2013-14 Entry Batch, submitted: September 2015, Awarded: May 2016).
2. Module Detection in Gene Regulatory Network Associated with *Hepatocellular Carcinoma*, **Sachin Bhatt**, M. Phil. in Inter. Basic Sciences (Bioinformatics), CIRBSC, JMI (2014-15 Entry Batch, submitted: May 2016, Awarded: October 2016).
3. Analysis of Modules in Protein-Protein Interaction Network of *Clostridium Tetani*, **Mohd Ayyubi**, M. Phil. in Interdisciplinary Basic Sciences (Biochemistry), CIRBSC, JMI (2014-15 Entry Batch, submitted: 15 May 2017, Awarded: 30 January 2018).
4. Study of Communities Formation of Brusselators in Complex Networks, **Ahmadi Hasan**, M. Phil. in Interdisciplinary Basic Sciences (Mathematics), CIRBSC, JMI (2015-16 Entry Batch, submitted 15 May 2017, Awarded: September 2017).
5. Network Based Identification of Oral Submucous Fibrosis Associated Signature Genes, **Prithvi Singh**, M. Phil. In Interdisciplinary Basic Sciences (Bioinformatics), CIRBSC, JMI (2016-17 Entry Batch, submitted 15 May 2018, Awarded: October 2018).

## PH. D STUDENTS SUPERVISED

1. **Thesis Title:** Structural Studies on OB-fold Proteins Implicated in Cancer Using Network Analysis and *in-vitro* Approaches, **Student's Name:** Mohd Amir. **Submitted on:** 29<sup>th</sup> October 2019, **Awarded on:** 18<sup>th</sup> February 2020.
2. **Thesis Title:** Design of Algorithms for Community Structure Detection in Real World Complex Networks, **Student's Name:** Pawan Kumar. **Submitted on:** 26<sup>th</sup> September 2019, **Awarded on:** 17<sup>th</sup> August 2020.
3. **Thesis Title:** Interaction of Anticancer Drug with Biomolecules, **Student's Name:** Neha Maurya. **Submitted on:** 23<sup>rd</sup> September 2019, **Awarded on:** 16<sup>th</sup> September 2020.
4. **Thesis Title:** Population dynamics for progression of viral infections using mathematical modelling, **Student's Name:** Narendra Kumar. **Submitted on:** 15<sup>th</sup> July 2020, **Awarded on:** 31<sup>st</sup> December 2020.

## PH. D STUDENTS UNDER CO-SUPERVISION

1. **Thesis Title:** Investigating the role of key prognostic genes in non-small cell lung cancer via network-based approach, **Student's Name:** Prithvi Singh.
2. **Thesis Title:** Uncovering novel therapeutic drug targets for Chronic Myeloid Leukemia: An integrated multi-omics approach, **Student's Name:** Alvea Tasneem.
3. **Thesis Title:** Algorithms Development for Overlapping Community Detection in Biological Network, **Student's Name:** Abhinav Kumar.
4. **Thesis Title:** Role of Kinase Family Protein in Cancer, **Student's Name:** Nayaab Sulaimani.
5. **Thesis Title:** Identification of gene regulatory elements in PAN cancer using novel module detection algorithms, **Student's Name:** Manish Singh.

## CONFERENCE/ ACADEMIC EVENTS AS ORGANIZING COMMITTEE MEMBER

- **ISC-2009** "Interdisciplinary Science Conference: Interference between Chemistry and Biology" held at Ansari auditorium organized by Centre for Interdisciplinary Research in Basic Sciences Jamia Millia Islamia, New Delhi, October 7, 2009.
- **I-ISC-2010** "International Interdisciplinary Science Conference on Bio-Nanotechnology: An Interference between Physics and Biology" held at Ansari auditorium organized by Centre for Interdisciplinary Research in Basic Sciences Jamia Millia Islamia, New Delhi, December 2-4, 2010. **(As a Treasurer)**
- **I-ISC-2011** "International Interdisciplinary Science Conference 2011 on Bioinformatics: An Interface between Computer Science and Biology" held at auditorium of faculty of Engg. & Tech. organized by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, November 15-17, 2011.
- **I-ISC-2012** "International Interdisciplinary Science Conference on Protein Folding and Diseases" held at Ansari auditorium organized by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, December 8-10, 2012.
- **17<sup>th</sup>-NSPTS** "National Seminar on Physics and Technology of Sensors" held at Ansari auditorium organized by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, March 11-13, 2013.
- **ISC-2013** "Recent Trends in Protein Structures Biology" held at auditorium of faculty of Engg. & Tech. organized by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, December 12-14, 2013. **(As a Treasurer)**
- **NCRTMV-2014** "National Conference of Recent Trends in Molecular Virology" held at auditorium of Ramanujan Block, organized by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, November 17-19, 2014. **(As a Treasurer)**
- **IBS-2015** "Golden Jubilee Meeting in Indian Biophysical Society Meeting and National Symposium on Biophysics" held at Ansari auditorium organized by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, February 14-17, 2015.

- **BIOPHYSIKA-2017** “National Seminar on Biophysics” held at Room No. 202, S. Ramanujan Block organized by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, March 16, 2017. **(As a Treasurer)**.
- **PSDHA-17** “Protein Structure and Dynamics in Health and Agriculture” held at Ansari Auditorium, jointly organized by Department of Biosciences and Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi November 3-4, 2017.
- One Day National Seminar on Quality Assurance in Higher Education held at Room No. 202, S. Ramanujan Block organized by IQAC, Jamia Millia Islamia, New Delhi November 04, 2017 **(As a Convener)**.
- INTERNATIONAL CONFERENCE ON NANOBIO TECHNOLOGY, held at Room No. 202, S. Ramanujan Block organized by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, February 5-6, 2018.
- **(CSTT)** Commission for Scientific Technical Terminology, Ministry of Human Resource Development (Department of Higher Education), Government of India & School of Computational and Integrative Sciences, Jawaharlal Nehru University, New Delhi-110067 organizes, Three days National Seminar on “Applications of Graph & Network in Computational Studies, Bioinformatics, Engineering and its Technical Terminology”, March 12-14, 2018.
- **BIOPHYSIKA-2018** “Symposium on Biophysics” held at Room No. 202, S. Ramanujan Block organized by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, November 20, 2018.
- **NCCS-ISC 2019** “National Conference on Complex Systems in Interdisciplinary Sciences” held at Room No. 202, S. Ramanujan Block organized by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, March 11-12, 2019 **(As a Convener)**.
- **BIOPHYSIKA-2019** “DST-PURSE Sponsored National Seminar on Biophysics” held at Room No. 202, S. Ramanujan Block organized by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, October 4, 2019.
- **BSB-2019 “Interdisciplinary Science on Big Data and Computational Biology”** held at Room No. 202, S. Ramanujan Block organized by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, October 21-22, 2019 **(As a Treasurer)**.
- **8<sup>th</sup> 2-Week Refresher Course in Basic Sciences (Interdisciplinary) (ONLINE)**, organized by UGC-HRDC in collaboration with Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, September 10-23, 2020 **(As a Coordinator)**.
- **A Virtual Seminar “Biophysika-2022”**, organized by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, March 28, 2022 **(As a Convener)**.
- **2-Week Refresher Course in Basic Sciences (Interdisciplinary) (ONLINE)**, organized by UGC-HRDC in collaboration with Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, August 22- September 04, 2023 **(As a Coordinator)**.
- **Biophysika-2024**, organized by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, February 28, 2024 **(As a Treasurer)**.
- **I-ISC-2024: International Interdisciplinary Science Congress: Young Scholar’s Meet** Organized by the Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi on 9 October 2024 **(As a Treasurer)**.
- **BIOPHYSIKA-2024: National Conference on Interdisciplinary Sciences** organized by the Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi on November 21, 2024 **(As a Co-convener)**.

#### **PARTICIPATED/ PRESENTED/ CHAIRED IN ACADEMIC EVENTS**

1. **Participated in Pre-ICM** “International Convention on Mathematical Sciences-2008” held at Conference Centre, University of Delhi, December 18-20, 2008.
2. **Participated in ICRTMA-09** “International Conference on Recent Trends in Mathematics and Its Applications” held at Department of Mathematics, Jamia Millia Islamia, New Delhi, March 30-31, 2009.

3. **Participated in NWCTP-DSAA** "National Workshop cum Training Program on Dynamical System: Analysis and Application" held at Department of Mathematics, Faculty of Science, Banaras Hindu University, Varanasi, October 22-31, 2009.
4. **Participated in "National Meet on History of Mathematics"** held at Conference Center University of Delhi organized by Department of Mathematics, University of Delhi, Delhi, January 7-9, 2010.
5. **Participated in WMTCA** "Workshop cum Training Programme on MODERN TRENDS IN CELESTIAL MECHANICS AND ASTRONOMY" Organized by Deshbandhu College (Morning) held at Conference Centre, Opposite Department of Botany, University of Delhi, Delhi-7, March 17-19, 2010.
6. **Poster Presented in I-ISC-2010** "International Interdisciplinary Science Conference on Bio-Nanotechnology: Interference between Physics and Biology" held at Ansari auditorium organized by Centre for Interdisciplinary Research in Basic Sciences Jamia Millia Islamia, New Delhi, December 2-4, 2010.
7. **Participated in Faculty Development Program on "Innovation-Key of Success"** held at Bangalore school of Business, Delhi Campus on 29<sup>th</sup> January 2011.
8. **Oral Presented in I-ISC-2011** "International Interdisciplinary Science Conference on Bioinformatics: Interference between Computer Science and Biology" held at Ansari auditorium organized by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, November 15-17, 2011.
9. **Participated in BIF'12** "Workshop on BIOINFORMATICS INFRASTRUCTURE & FRONTIERS" organized by Bioinformatics Infrastructure facility, Department of Computer Science, Jamia Millia Islamia (A Central University), New Delhi, March 13-14, 2012.
10. **Attended Author workshop** "How to Write for and Get Published in Scientific Journals and Publish Manuscripts" conducted by Springer and Edanz along with the Jawaharlal Nehru University Central Library at New Delhi on 27<sup>th</sup> August 2012.
11. **8<sup>th</sup> Dynamics Day Delhi 2012** held at Seminar Hall, Centre for Theoretical Physic organized by Centre for Interdisciplinary Research in Basic Science, Jamia Millia Islamia, New Delhi-25 on 8<sup>th</sup> November 2012.
12. **Participated in Symposium** on "Complex System: From Physics to Biology" held at Jawaharlal Nehru University, New Delhi, October 15-16, 2013.
13. **Participated in NCRTPSB-2013** "National Conference on Recent Trends in Protein Structural Biology-2013" organized by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, December 16-18, 2013.
14. **Participated in 109<sup>th</sup> four-week Orientation Program** organized by the UGC-ASC, Jamia Millia Islamia, New Delhi from 05 August to 03 September 2014.
15. **Poster Presented in NCRTMV-2014** "National Conference on Recent Trends in Molecular Virology-2014" organized by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, November 17-19, 2014.
16. **Oral Presented in ICGAA-2014** "International Conference on Algebra, Geometry, Analysis and their Applications" organized by Department of Mathematics, Jamia Millia Islamia, New Delhi, November 27-29, 2014.
17. **Poster Presentation in the** "National Symposium in Biophysics & Golden Jubilee Meeting of the Indian Biophysical Society", organized by the Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi, February 14-17, 2015.
18. **Attended ACBB-2015** "DBT-BIF 6<sup>th</sup> National Workshop on Advances in Computational Biology and Bioinformatics" held on 27<sup>th</sup> and 28<sup>th</sup> February 2015 at Department of Computer Sciences, Jamia Millia Islamia, New Delhi.
19. **Participated in Refresher Course in Mathematics** from 18 March- 7 April 2015 organized by the Department of Mathematics under the auspicious of the UGC Academic Staff College, Panjab University, Chandigarh.
20. **Participated in seminar on** "Impact of Ultrapure Water on Mass Spectrometry and Biological Application" conducted by Centre for Interdisciplinary Research in Basic Sciences, Jamia Millia Islamia, New Delhi on 23<sup>rd</sup> November 2015.

21. **Participated in CWCS-2015** “Complex System Winter School-2015” organized by Santa Fe Institute at Indian Institute of Science Education and Research, Mohali from 7<sup>th</sup> -21<sup>st</sup> December 2015.
22. **Oral presented in ITMCIT-17** “INTERNATIONAL CONFERENCE ON INNOVATIVE IN MATHEMATICAL, COMPUTATER & INFORMATION SCIENCES” organized by Department of Mathematics & Humanities in collaboration with Computer Sciences & Engineering and Learning Resource Centre, Maharshi Markandeshwar University, Mullana, Ambala-Haryana (133207), India on March 9-10, 2017.
23. **Participated in NATIONAL SEMINAR on** “Recent Trends and Future Prospects in Sustainable Agriculture with Reference to Climate Change” organized by Department of Agronomy, Janta College, Bakewar, Etawah (U. P.) held on March 18-19, 2017.
24. Participated in “**Symposium in Network Biology**” organized by Centre for Computational Biology, IIIT-Delhi on 28<sup>th</sup> October 2017.
25. **Presented paper in RAACE-2017** “Recent Advances & Applications in Computer Engineering” title *Module Detection in Gene Regulatory Network Associated with Hepatocellular* organized by St. Xavier’s College, Jaipur, India on November 23-25, 2017.
26. **Presented paper**, title *Interaction behavior of chemical oscillators in scale-free and non-scale-free networks* in the **International Conference on Current Trends in Theoretical and Computational Differential Equation with Applications** held during December 01-05, 2017, organized by Department of Mathematics, South Asian University, New Delhi.
27. Commission for Scientific Technical Terminology, Ministry of Human Resource Development (Department of Higher Education), Government of India & School of Computational and Integrative Sciences, Jawaharlal Nehru University, New Delhi-110067 organizes, Three days National Seminar on “Applications of Graph & Network in Computational Studies, Bioinformatics, Engineering and its Technical Terminology”, March 12- 14, 2018.
28. **A talk on** “Progression Dynamics of Chikungunya, Dengue and Zika Virus with Optimum control measures” in the International Workshop on Modeling Dynamics, Statistical Inference & Prediction of Infectious Diseases (MoDSIP-ID) held during 12-15 August 2018 at Department of Mathematics & Computer Sciences, Sri Satya Sai Institute of Higher Learning Prasanthi Nilayam, India.
29. **Participated in** National Conference on “MODELING, OPTIMIZATION AND COMPUTING FOR ENGINEERING PROBLEMS: USE OF TECHNICAL HINDI TERMINOLOGY” sponsored and fully funded by Commission for Scientific and Technical Terminology (CSTT), MHRD, Govt. of India, held at IIT Roorkee, Roorkee, Uttarakhand, during 12-14 October 2018.
30. **Participated with paper presentation in** “1<sup>st</sup> 3-Week Refresher Course on Computational & Mathematical Studies (Computer Science, Mathematics & Statistics)” which has been organized by the UGC-Human Resource Development Centre, Jamia Millia Islamia, New Delhi from 29 August to 19 September 2018.
31. **Presented paper in** National Conference on “EMERGING TRENDS ON MATHEMATICAL SCIENCES FOR INDUSTRY AND ENVIRONMENT: USE OF TECHNICAL HINDI TERMINOLOGY” sponsored and fully funded by Commission for Scientific and Technical Terminology (CSTT), MHRD, Govt. of India, held at Shaheed Bhagat Singh College, New Delhi, during 27-29 January 2020.
32. **Participated and paper presented in** “2<sup>nd</sup> two-week Refresher Course on Computational & Mathematical Sciences” which has been organized by the UGC-Human Resource Development Centre, Jamia Millia Islamia, New Delhi from 7<sup>th</sup> February to 20<sup>th</sup> February 2020.
33. Chaired a technical session on “Applied Mathematics” in the Five-Day **International Conference on Recent Trends in Mathematics and Its Applications to Graphs, Networks and Petri Nets (ICRTMA-GPN-2020)** hosted at School of Computational and Integrative Sciences, Jawaharlal Nehru University, New Delhi-110067, India, held online during July 20– 24, 2020.
34. Chaired an online Seminar Presentation session on 02.02.2021 to the participants of **Third online One Month Faculty Induction Programme** organised by the UGC-Human Resource Development Centre, Jamia Millia Islamia, New Delhi from 28<sup>th</sup> December 2020 to 2<sup>nd</sup> February 2021.
35. Attended an **ONLINE TWO - WEEK INTERDISCIPLINARY REFRESHER COURSE/FACULTY DEVELOPMENT PROGRAMME** on “Advanced Research Methodology 2.0” from 17 June - 01



July 2021 and obtained Grade A, organized by Teaching Learning Centre, Ramanujan College (University of Delhi) under the aegis of MINISTRY OF EDUCATION (PANDIT MADAN MOHAN MALAVIYA NATIONAL MISSION ON TEACHERS AND TEACHING).

#### LECTURE/ INVITED TALK DELIVERED

1. Delivered online a lecture on topic **“Network Science and Its Applications”** at the The Malaviya Mission Teacher Training Centre, Jamia Millia Islamia is organizing an online 2-Week Refresher Course in Basic Sciences (Interdisciplinary) from 24 October to 08 November 2024.
2. Delivered lecture on topic **“Analysis of Data Using Network Science”** on 29.05.2024 (10.00-12.00) online in a 10-day Faculty Development Programme on Statistics in Education and Social Sciences Research from 22.05.2024 to 31.05.2024 organized by The Association of Indian Universities-Dayalbagh Educational Institute-Academic and Administrative Development Center (AIU-DEI-AADC) and Faculty of Education, DEI, Agra.
3. Delivered lecture on topic **“Regression and Multiple Regression”** on 25.05.2024 (12.30-2.30) online in a 10-day Faculty Development Programme on Statistics in Education and Social Sciences Research from 22.05.2024 to 31.05.2024 organized by The Association of Indian Universities-Dayalbagh Educational Institute-Academic and Administrative Development Center (AIU-DEI-AADC) and Faculty of Education, DEI, Agra.
4. Delivered a lecture on topic **“Network Science and Its Applications”** in lecture series on Applied Mathematics: Theory and Applications on March 16, 2024, from 11:00 AM to 12:30 PM at Old Seminar Hall, PGDAV College, organized by Department of Mathematics, PGDAV College, New Delhi on March 15-16, 2024.
5. Delivered a lecture on topic **“Pure Expansion based Local Community Detection Algorithm in Networks”** in **International Conference on Analysis and its Applications** on 21<sup>st</sup> January 2024 at Jamia Millia Islamia, New Delhi.
6. Delivered a lecture on topic **“Kinesin family in lung adenocarcinoma”** in Molecular Oncology Workshop on 14<sup>th</sup> July 2023 at Hotel Courtyard by Marriott, Andheri, Mumbai. The workshop is organized as a part of the 3-Days Academic Programme - 6<sup>th</sup> Masterclass in Lung Cancer on 14<sup>th</sup>, 15<sup>th</sup> & 16<sup>th</sup> July 2023.
7. Delivered a Lecture on topic **“Networks and Graph Theory”** in 7<sup>th</sup> Refresher Course in Information & Communication Technology (ICT) through online mode organized by UGC-HRDC, Deen Dayal Upadhyaya Gorakhpur University, Gorakhpur (Uttar Pradesh-273009) on 31.12.2023 from 10.30 am to 12.00 Noon.
8. Delivered a Lecture on the topic **“UGC-CARE and its globally indexed database”** in the Orientation Programme on “Predatory Journals and UGC-CARE Listing of Journals” on February 03, 2022, Organized by Internal Quality Assurance Cell (IQAC) & HMS Central Library Jamia Hamdard, New Delhi.
9. Delivered a Lecture on topic **“Network modelling in Data”** in 4<sup>th</sup> Refresher Course in Research Methodology (IDC) through online mode organized by HRDC-JNU (Jawaharlal Nehru University, New Delhi) on 16.12.2021 from 11.30 am to 01.00 pm.
10. Delivered an online invited lecture on the topic **“Introduction to Numerical Methods”** on 19<sup>th</sup> July 2021 at 11:00 am-11:45 am in the INVITED LECTURE SERIES ON “NUMERICAL TECHNIQUES IN MATHEMATICS” from 19<sup>th</sup> to 23<sup>rd</sup> July 2021, organized by Government P.G. College, Bazpur, U. S. Nagar, Uttarakhand.
11. Delivered an invited talk on **“Opportunities in the Field of Mathematics”** at Career Counselling Session Organized by Department of Mathematics, Gargi College on 15<sup>th</sup> February 2021.
12. Delivered an invited talk on topic **“Criterion IV: Infrastructure and Learning Resource”** on 28<sup>th</sup> July 2020 at 10:30 am -11:30 am at ONLINE in Two Day online workshop on NAAC: Revised Accreditation Framework on 27-28 July 2020 under the scheme of **“Paramarsh”** organized by **Dayal Bagh Educational Institute (Deemed to be University), Agra, India.**
13. Delivered an invited talk on topic **“Dynamics and Network Analysis of Social Data”** on 17<sup>th</sup> October 2019 at 11:30 am -01:00 pm at **UGC-HRDC, Jawaharlal Nehru University, New Delhi.**

14. Delivered invited talk on topic “**Research and Innovation in Interdisciplinary Sciences through Mathematics**” on 19th January 2019 at 10:00 AM at HI-TECH Institute of Engineering & Technology, NH-24, Delhi-Meerut Bypass, Ghaziabad (This Science Camp was sponsored by **Ministry of Science & Technology, Department of Science & Technology, Government of India, New Delhi**).
15. Delivered invited talk on topic “**Biomathematics**” in Seminar “Career with Mathematics” organized by The Mathematical Society, **Shaheed Bhagat Singh College, Shaikh Sarai, New Delhi** on 10<sup>th</sup> -11<sup>th</sup> November 2017.
16. Delivered invited talk on the topic “**Biological Networks Using Graph Theory**” on 18<sup>th</sup> April 2015 at 3:30 p.m. at **Centre for Fundamental Research in Space Dynamics and Celestial Mechanics, IA, 47C, Ashok Vihar Phase-I, Delhi-52**.

#### PERSONAL PROFILE

**Father’s Name:** Late Shri Bateshwar Dayal

**Date of Birth:** 05-July-1987

**Language Known:** Hindi, English, Urdu, and Sanskrit

**Nationality:** Indian