




# SLC (University of Delhi) Shyam Lal College



NAAC A++

## Faculty Profile

|                    |   |                   |       |                  |       |  |
|--------------------|---|-------------------|-------|------------------|-------|--|
| <b>Title</b>       | Dr.   | <b>First Name</b> | LEENA | <b>Last Name</b> | SINGH | <b>Photograph</b><br> |
| <b>Designation</b> | Assistant Professor   |                   |       |                  |       |  |
| <b>Department</b>  | Computer Science  |                   |       |                  |       |  |
| <b>Address</b>     | Flat no. 601, Tower 4, NRI Residency, Sector- 45, Noida.<br>Pin-201301  |                   |       |                  |       |  |
| <b>Email</b>       | <a href="mailto:lsingh@shyamlal.du.ac.in">lsingh@shyamlal.du.ac.in</a> , <a href="mailto:leenasingh25@gmail.com">leenasingh25@gmail.com</a> |                   |       |                  |       |  |
| <b>Web-Page</b>    |   |                   |       |                  |       |  |

### **Educational Qualification**

| Degree | Subject                        | University/ College/Institution     | Year |
|--------|--------------------------------|-------------------------------------|------|
| Ph.D   | Engineering                    | Amity University, Noida             | 2020 |
| M.Tech | Computer Science & Engineering | Kurukshetra University, Kurukshetra | 2005 |
| M.Sc   | Computer Science               | Kurukshetra University, Kurukshetra | 2003 |
| B.Sc.  | Computer Science               | Kurukshetra University, Kurukshetra | 2001 |

### **Experience**

|                     | Name of the University/College/ Institute/Organisation   | Designation & Status (Permanent/Ad-hoc) | From      | To             | Effective time period |
|---------------------|--|---|-----------|----------------|-----------------------|
| Teaching            | Sri Krishan Institute of Engineering & Technology (Affiliated to Kurukshetra University Kurukshetra) | Lecturer Ad-hoc                         | 3.9.2005  | 10.8.2006      | 1 year approx.        |
|                     | ASET (Affiliated to Guru Gobind Singh Indraprastha University, New Delhi)                            | Assistant Professor Permanent           | 11.8.2006 | 28.2.2022      | 15 years 6 months     |
|                     | ASET, Amity University, Noida  | Assistant Professor Permanent           | 1.3.2022  | 31.3.2023 (FN) | 1 year 1 month        |
|                     | Shyam Lal College, University of Delhi   | Assistant Professor Permanent           | 31.3.2023 | Till date      |                       |
| Research/ Corporate |  |   |           |                |                       |
| Consultancy         |  |   |           |                |                       |

| Teaching-Learning Process (Academic Year 2023-24 Onwards)                               |  |  |  |                          |                         |                |   |  |                       |
|---|--|--|--|--------------------------|-------------------------|----------------|---|--|-----------------------|
| Are You using ICT (LMS, E-Resources)?   |  | If yes, please give the details below:       |  |                          |                         |                |   |  |                       |
|   |  | Name   |  |                          |                         | Total Numbers  |   |  |                       |
| E-Resources   |  |  |  |                          |                         |                |   |  |                       |
| Techniques and Platforms  |  |  |  |                          |                         |                |   |  |                       |
|   |  |  |  |                          |                         |                |   |  |                       |
| Career Advancement and Contribution to College Corporate Life (2023-24 Onwards)         |  |  |  |                          |                         |                |   |  |                       |
|   |  | Name of the Committee/ Centre/ Society/ Cell |  | Designation              |                         | From           |   | To   |                       |
| Convenor/Member of Committees   |  | Research & Development Cell                  |  | Member                   |                         | January 2024   |   | Till now                                     |                       |
|   |  | Logistics Committee (Annual Day)             |  | Member                   |                         | October 2023   |   | Till now                                     |                       |
|   |  | Standard Club                                |  | Convenor                 |                         | October 2023   |   | Till now                                     |                       |
|   |  | IIC Committee                                |  | Member                   |                         | October 2023   |   | Till Now                                     |                       |
|   |  | NIRF Committee                               |  | Member                   |                         | September 2023 |   | Till Now                                     |                       |
|   |  | Computer/IT committee                        |  | Member                   |                         | July 2023      |   | Till Now                                     |                       |
|   |  | Girls Common Room                            |  | Member                   |                         | July 2023      |   | Till Now                                     |                       |
|   |  | IQAC   |  | Member                   |                         | June 2023      |   | Till Now                                     |                       |
| Any Other Administrative Responsibility (Bursar, Coordinator, Superintendent etc.)      |  | Election Committee                           |  | Member (Vote Tabulation) |                         | September.2023 |   |  |                       |
|   |  | Internal Practical Examination               |  | Superintendent           |                         | December 2023  |   |  |                       |
|   |  |  |  |                          |                         |                |   |  |                       |
|   |  |  |  |                          |                         |                |   |  |                       |
| Areas of Interest/Specialisation  |  |  |  |                          |                         |                |   |  |                       |
| S.No.   | Areas of Interest/ Specialisation            |  |  |                          |                         |                |   |  |                       |
| 1   | Software Engineering                         |  |  |                          |                         |                |   |  |                       |
| 2   | AI and Machine Learning                      |  |  |                          |                         |                |   |  |                       |
|   |  |  |  |                          |                         |                |   |  |                       |
| Subjects Taught   |  |  |  |                          |                         |                |   |  |                       |
| S.No.   | Subject                                      |  |  | S.No.                    | Subject                 |                |   |  |                       |
| 1.  | Data Analysis and Visualization using Python |  |  | 5.                       | Programming with Python |                |   |  |                       |
| 2.  | Essentials of Python                         |  |  |                          |                         |                |   |  |                       |
| 3.  | Operating Systems                            |  |  |                          |                         |                |   |  |                       |
| 4.  | Basic IT Tools                               |  |  |                          |                         |                |   |  |                       |
| Publications: Citation Index in Scopus/Web of Science or Pub Med/ Indian Citation Index |  |  |  |                          |                         |                |   |  |                       |
| Title of Paper  |  | Name of the Author                           | Title of the Journal                                   | Year of Publication      | Citation Index          | h-Index        | Institutional affiliation as mentioned in the publication | Number of citations excluding self-citations | Impact factor, if any |
| A Hybrid Technique for Selection and Minimization of Test cases in Regression Testing   |  | Leena Singh, et.al                           | Recent Advances in Computer Science and Communications | 2021                     | 1                       |                | AUUP, Noida   |  |                       |

|  |                    |   |      |     |  |             |  |  |
|--|--------------------|---|------|-----|--|-------------|--|--|
| A Fuzzy Rule Based Approach for Test Case Selection Probability Estimation in Regression Testing                     | Leena Singh, et.al | International Journal of Computer Aided Engineering & Technology                          | 2019 | 1   |  | AUUP, Noida |  |  |
| Mouse Movement using Face and Eye Tracking via Webcam to Provide Computer Access for People with Severe Disabilities | Leena Singh, et.al | International Journal of Computing  | 2012 |     |  | ASET, Delhi |  |  |
| A bicriterion call center problem through an evolved branch and bound algorithm                                      | Leena Singh, et.al | OPSEARCH, Springer  | 2011 | 5   |  | ASET, Delhi |  |  |
| Face Recognition Machine Vision System Using Eigenfaces  | Leena Singh, et.al | International Journal of Recent Trends in Engineering                                     | 2009 | 18  |  | ASET, Delhi |  |  |
| Time Optimization for Traffic Signal Control Using Genetic Algorithm   | Leena Singh, et.al | International Journal of Recent Trends in Engineering                                     | 2009 | 120 |  | ASET, Delhi |  |  |
| Performance Optimization for Face Localization using Artificial Neural Network                                       | Leena Singh, et.al | International Journal of Computer Science, Systems Engineering and Information Technology | 2008 | 6   |  | ASET, Delhi |  |  |
|  |                    |   |      |     |  |             |  |  |

**Books and Chapters in Edited Volumes/Books published, and papers in National /International conference**

| Proceeding per teacher during the Year  |  |   |                                       |                            |          |             |
|---|--|---|---------------------------------------|----------------------------|----------|-------------|
| Title of Paper/ Book Chapter  | Publisher  | National/International  | Year                                  |                            |          |             |
| Analysis of Tree-Based Machine Learning Techniques for Credit Card Fraud Detection        | Apple Academic Press, First Edition  | Advancements in Cybercrime Investigation and Digital Forensics    | 2023                                  | 10                         |          |             |
| Prediction of Flight Fares Using Machine Learning   | IEEE   | International   | 2023                                  |                            |          |             |
| Detection of Fake News using Machine Learning   | IEEE   | International   | 2023                                  |                            |          |             |
| Sign Language Recognition System Using Deep Learning                                      | IEEE   | International   | 2023                                  |                            |          |             |
| A Natural Language Processing-Based Chatbot for Mental Health Care                        | Springer   | International   | 2022                                  |                            |          |             |
| Eunoia: A Website for Self-CBT and Psychotherapy  | Springer   | International   | 2022                                  |                            |          |             |
| A Path Coverage based reduction of test cases and execution time using Parallel Execution | Springer   | International   | 2015                                  |                            |          |             |
| Study of current Program Slicing Techniques   | IEEE Explore   | International   | 2014                                  |                            |          |             |
| Conference/ Seminar/ Symposium/ Workshop/ Presentation                                    |  |   |                                       |                            |          |             |
| Sr. No.   | National/International/state   | Topic   | Presentation/Attended/Resource Person | Date                       | Duration | Conferences |
| 1.  | International Conference on Sustainable Development Goals and Gender Perspective, Department of Electrical Engineering, Sardar Vallabhbhai National Institute of Technology, Surat | Cognitive Behavior Therapy and Mental Health                      | Presented                             | 25th and 26th October 2021 | 2 days   |             |
| 2.  | International Conference on Sustainable Development Goals and Gender Perspective, Department of Electrical Engineering, Sardar Vallabhbhai National Institute of Technology, Surat | Intelligent Virtual Assistants for Emotional Wellness             | Presented                             | 25th and 26th October 2021 | 2 days   |             |
| 3.  | Proceedings of 2nd International Conference on Advanced Computing and Software Engineering (ICACSE), Kamla Nehru Institute of Technology Sultanpur                                 | A New Technique for Test Suite Minimization in Regression Testing | Presented                             | 8-9 February 2019          | 2 days   |             |
| 4.  | Performance Optimization of Neural Networks Based Face Localization  | Proc. Of 3 <sup>rd</sup> International Conference on Advanced     | Presented                             | 8-9 November 2008          | 2 days   |             |

|    |   |   |           |                  |        |
|----|---|---|-----------|------------------|--------|
|    |   | <i>Computing &amp; Communication Technologies (ICACCT-08), Panipat</i>  |           |                  |        |
| 5. | Real Time Traffic Signal Control Strategy Using Genetic Algorithm | <i>Proc. of International Conference on Sensors, Signal Processing, Communication Control and Instrumentation (SSPCCIN -08), Pune</i> | Presented | 3-4 January 2008 | 2 days |
|    |   |   |           |                  |        |

### Innovation - Patents

| S.No. | Title of the Patent   | Patent Number/<br>Application Number | Status/Output                             |
|-------|---|--------------------------------------|---|
| 1.    | Urban Flat rooftop inflatable Rainwater Conservation System | 512906                               | Granted on 20 <sup>th</sup> February 2024 |
| 2.    | A Novel Solar PC Module Design                              | 355623-001                           | Granted on 23 <sup>rd</sup> May 2023      |
| 3.    | An Electrical Solution for Killing Locust                   | 202011024149                         | Published 2020                            |
| 4.    | Board Wiping Device   | 201911036627                         | Published 2019                            |
| 5.    | A Foldable in-house Cloth dryer Assembly                    | 202211066781                         | Filed 2022                                |
|       |   |                                      |   |

### Research Projects/ Innovation Projects (Major Grants/Research Collaboration)

| S.No. | Title of the Project | Funding Agency | Status/Output |
|-------|----------------------|----------------|---------------|
|       |                      |                |               |

### Research Guidance (Ph. D./ M. Phil.)

|                | No. of Ph.D. Students | No. of M.Phil. Students |
|----------------|-----------------------|-------------------------|
| Awarded        | --                    |                         |
| Submitted      | --                    |                         |
| Under Progress |                       |                         |

### Fellowships/Awards /Distinctions/Recognitions

| Year of Award | Name of the Fellowship/Award/<br>Distinction/<br>Recognition | Designation | Name of the Academic Bodies /Association | International /National/ State |
|---------------|--|-------------|--|--------------------------------|
|               |  |             |  |                                |
|               | --   |             |  |                                |
|               |  |             |  |                                |

### Incentive to the teachers who receive recognition/awards

| State | National | International |
|-------|----------|---------------|
|       | --       |               |

### Association with the Professional Bodies

|  | Name of the Organisation  | Year      |
|--|---|-----------|
|  | Member of International Association of Engineers (IAENG) with membership number | Life time |

|            |  |           |
|------------|--|-----------|
| Membership | 108744.  |           |
|            | Member of International Association of Computer Science and Information Technology (IACSIT) with member number 80338821. | Life time |
|            | Member of Academy & Industry Research Collaboration Center (AIRCC), membership id 128519.                                | Life time |
|            | Member of Computer Science Teachers Association (CSTA) with membership number 6216205.                                   | Life time |
|            | Member of Universal Association of Computer and Electronics Engineers (UACEE) with membership id AM1005997               | Life time |
| Any Other  |  |           |

### Development of E-Learning Delivery Process/Material

| S.No. | Title of the Module | Recognized by/Submitted at/<br>Delivered at any government setup |
|-------|---------------------|--|
|       |                     |  |
|       |                     |  |

### Refresher/ Orientation Programme/ FDP / Other Specialised Courses

| S.No. | Topic   | Name of the Organiser   | Place           | Duration and Year   |
|-------|---|---|-----------------|---|
| 1     | Refresher course on “Advanced Research Methodology”   | TLC, Ramanujan College in collaboration with M. V. S. Government Arts & Science College, Telangana under the aegis of Ministry of Education, New Delhi, India | New Delhi       | 2 weeks<br>(22 May 2023 to 5 June 2023)<br><b>Year :2023</b>      |
| 2     | Faculty Induction/Orientation programme on Faculties in Universities/Colleges /Institutes of Higher Education | TLC, Ramanujan College in collaboration with Army Institute of Education, GGSIPU under the aegis of Ministry of Education, New Delhi, India                   | New Delhi       | 4 weeks<br>(23 April 2023 to 22 May 2023)<br><b>Year :2023</b>    |
| 3     | Cloud Computing and Internet of Things  | Department of Electronics Engineering J.C. Bose University of Science and Technology,   | YMCA Faridabad. | 1 week<br>(07/02/2022 to 12/02/2022)<br>2022<br><b>Year :2022</b> |
| 4     | Recent Trends in Artificial Intelligence and its Application  | Department of ECE at MSIT, New Delhi.   | New Delhi.      | 1 week<br>(29/11/2021 to 03/12/2021)<br><b>Year :2021</b>         |
| 5     | Learn and Build an AI Application on Real Datasets  | Department of Computer Science & Engineering of Dr. Akhilesh Das Gupta Institute of Technology & Management (ADGITM), New Delhi                               | New Delhi.      | 1 week<br>(22/11/2021 to 27/11/2021)<br><b>Year:2021</b>          |
| 6.    | Software Engineering Paradigms of Computational Intelligence  | Netaji Subhas University of   | New Delhi.      | 1 week  |

|     |   |  |                   |  |
|-----|---|--|-------------------|--|
|     |   | Technology, New Delhi.   |                   | (25/10/2021 to 29/10/2021)<br><b>Year:2021</b>         |
| 7.  | Recent Trends in Renewable Energy - For a Better Tomorrow   | Department of Electrical & Electronics Engineering and Mechanical Engineering, School of Engineering and Technology, K.R. Mangalam University, Gurugram, Haryana | Gurugram, Haryana | 1 week (02-08-2021- 06-08-2021 )<br><b>Year:2021</b>   |
| 8.  | National Instructional workshop on CRYPTOLOGY   | School of Computer and Systems Sciences, JNU, New Delhi.   | New Delhi         | 1 week (22-7-20 to 26-7-20)<br><b>Year:2020</b>        |
| 9.  | National Workshop on "Research Challenges in Computer Science and Technology  | Deptt. of CSE/IT, Mahatma Gandhi Central University, Bihar   | Bihar             | 1 week (18-06-20 to 22-06-2020)<br><b>Year: 2020</b>   |
| 10. | FDP on "Machine Learning and its applications using Python  | Ajay Kumar Garg Engineering college  | Ghaziabad         | 1 week(29-6-20 to 03-07-20)<br><b>Year:2020</b>        |
| 11. | TEQIP-II Sponsored Short Term Training Program Privacy Preserving Data Mining   | SVNIT Surat  | Surat             | 1 week(25/05/15 to 29/05/15)<br><b>Year: 2015</b>      |
| 12. | TEQIP-II Sponsored Short Term Training Program on Audio and Speech Signal Processing                                      | SVNIT Surat  | Surat             | 1 week(07/07/14 to 11/07/14)<br>Year :2014             |
| 13. | DeITY,MCIT,Gol funded Short Term Training Program on Wireless Sensor Networks: Secure Data Aggregation and Related Issues | SVNIT Surat  | Surat             | 1 week(14/07/14 to 18/07/14)<br>Year:2014              |
| 14. | QIP Short term Course on Recent Advances in Genetic Algorithms and their Applications in Engineering Design               | IIT Roorkee  | Roorkee           | 1 week( 25.06.2012 to 29.06.2012)<br><b>Year :2012</b> |
| 15. | QIP Short term Course on Image processing and Computer Graphics for Scientific Visualization held                         | IIT Roorkee  | Roorkee           | 1 week( 09.07.2012 to 13.07.2012)<br><b>Year :2012</b> |

### Declaration

I do hereby solemnly declare that the information given and the statements made by me are correct and true to the best of my knowledge.

*Leena Singh*

**Signature with Full Name**