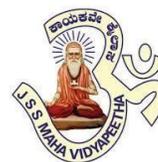




**JSS Mahavidyapeetha**  
**JSS Academy of Technical Education**  
**Department of Computer Science & Engineering**  
www.jssaten.ac.in



**FACULTY PROFILE**

Department: Computer Science and Engineering

**1. Personal Details**

|                           |  |  |
|---------------------------|--|--|
| NAME                      | Dr Vikram Bali   |  |
| DEPARTMENT                | Computer Science and Engineering                               |  |
| DESIGNATION               | Prof.(Dr.)Vikram Bali, HOD and Professor                       |  |
| PHONE                     | 09891372928  |  |
| EMAIL ID                  | <a href="mailto:hodcse@jssaten.ac.in">hodcse@jssaten.ac.in</a> |  |
| Date of Joining (JSSATEB) | 7-5-2018   |  |

**2. Experience**

|                           |                    |           |                   |
|---------------------------|--------------------|-----------|-------------------|
| Total Experience in Years | Teaching: 20 Years | Industry: | Research: 0 Years |
|---------------------------|--------------------|-----------|-------------------|

**3. Qualifications**

| COURSES   | SPECIALIZATION                 | Year of Award | INSTITUTION | UNIVERSITY                          |
|-----------|--------------------------------|---------------|-------------|-------------------------------------|
| B.E.      | Computer Engineering           | 2000          |             | Kurukshetra University, Kurukshetra |
| M.E.      | Computer Science               | 2011          |             | Panjab University                   |
| Ph.D.     | Computer Science & Engineering | 2016          |             | Banasthali University               |
| Post Doc. |                                |               |             |                                     |

**4. Research & Publications**

|   |     |  |
|---|-----|--|
| Papers Published in Web of Science indexed Journals | 13  |  |
| Papers Published in SCOPUS indexed Journals         | 12  |  |
| Papers Published in other Journals                  | Nil |  |
| Papers Presented in Conferences / Symposium         | Nil |  |

|                                    |   |
|------------------------------------|---|
| Books / Book chapters<br>Published | 01  |
|                                    | Name of the book: Directional Location Verification and Routing in Vehicular Ad-Hoc Network<br>Publisher: IGI Global<br>Year of Publication: 2020 |

## 5. Research Guidance

|                                    |                            |  |
|------------------------------------|----------------------------|--|
| PhD Guide? Give field & University | Yes,                       | University:<br>a.  |
| PhDs / Projects Guided             | Ph.D. Awarded:<br>Guiding: | Projects at Master's Level:<br>Projects at Bachelor's Level: |

## 6. Grants

### i. Funds Received (Projects)

| Project Name | Grant Amount | Date of receiving the Grant | Duration | Grant issuing authority/ Body / Organization |
|--------------|--------------|-----------------------------|----------|--|
|              |              |                             |          |  |

### ii. Patents

| Sl. No. | Title Details   | Details of award of patent / Filed                      |
|---------|---|---|
| 1       | "Automated Green Corridor For Life Saving Vehicles"                             | Patent No. 202011038836; Publication Date: 09.10.2020)  |
| 2       | "Smart Dustbin- Sanitation & Solid-Liquid Waste Management".                    | (Patent No. 202011000793; Publication Date: 03.02.2020) |
| 3       | "Prediction Model for Assessing Performance of Academic Students"               | Patent No. 202011043363; Publication Date: 23.10.2020   |
| 4       | "Reduce, Re-Cycle and Reuse (RRR) Iot Intelligence Waste Management System"     | Patent No. 202111001043; Publication Date: 15.01.2021   |
| 5       | "Blockchain based Drug Traceability System for Pharmaceutical Supply Chain"     | Patent No. 202011054439; Publication Date: 08.01.2021   |
| 6       | "IOT Based Water Flow Regulator And Distributor for Auto Controlled Irrigation" | Patent No. 202011043364; Publication Date: 23.10.2020   |

### iii. Consultancy

| Title of the work | Amount in Rs. | Date of receiving the Grant | Duration | Grant issuing authority/ Body / Organization |
|-------------------|---------------|-----------------------------|----------|--|
| Nil               |               |                             |          |  |

## 7. Awards Received

|   |   |
|---|---|
| 1 | Mentor of team Altruist of JSSATEN who won 1 <sup>st</sup> Prize at Smart India Hackathon   |
| 2 | Received Certificate of Honour from Department of Science & Technology, UP for Engineering Student's Project Grant Scheme 2019                                    |
| 3 | Received Letter of Appreciation from Waljat College of Applied Science, Oman for validation of their research project sponsored by Research Council of Oman, 2019 |

|   |  |
|---|--|
| 4 | Awarded Green Thinker Z-Distinguished Educator Award 2018 for remarkable contribution in the field of Computer Science and Engineering at 3 <sup>rd</sup> International Convention on Interdisciplinary Research for Sustainable Development (IRSD) at Confederation of Indian Industry (CII), Chandigarh. |
| 5 | Awarded Outstanding Teaching Award for session 2015-16 at Panipat Institute of Engineering and Technology, Panipat, Haryana.   |
| 6 | Awarded Outstanding Teaching Award for session 2014-15 at Panipat Institute of Engineering and Technology, Panipat, Haryana.   |
| 7 | Awarded Outstanding Teaching Award for session 2007-08 at Ideal Institute of Technology, Ghaziabad   |

## 8. Publications

### i. International Journals

| Sl. No. | Title of the paper  | Name(s) of Author(s)                                       | Name of the Journal  | Volume No. Issue No. Year | WOS / Scopus / Both | Impact Factor | Publisher |
|---------|---|--|--|---------------------------|---------------------|---------------|-----------|
| 1       | FruitBlock: A Layered Approach to Implement Blockchain based Traceability System for Agri Supply Chain                      | Khanna, T., Nand, P. and Bali, V. (2020)                   | International Journal of Business Information Systems                            | Vol. 11, Issue 4          | Scopus              |               | ABDC      |
| 2       | Identifying Non-Performing Students in Higher Educational Institutions Using Data Mining Techniques                         | Aggarwal, D., Mittal, S. and Bali, V.                      | International Journal of Information System Modeling and Design                  | Vol. 11, Issue 4          | Both                |               | ESCI      |
| 3       | Stress Analysis Using Machine Learning Techniques   | Sharma, T., Banerjee, K., Mathur, S. and Bali, V. (2020)   | International Journal of Advanced Science and Technology                         | Vol. 29, No. 3            | Scopus              |               |           |
| 4       | Multi-Criterion Decision Making for Wireless Communication Technologies Adoption in IoT                                     | Juneja, A., Juneja, S., Bali, V. and Mahajan, S            | International Journal of System Dynamics Applications (IJSDA), Vol. 10, Issue 1, |                           | WoS                 |               |           |
| 5       | Cancer Prediction Using Machine Learning Techniques Based on Clinical & Non-Clinical Parameters                             | Nagar, R., Aggarwal, D., Saxena, U. R. and Bali, V. (2020) | International Journal of Advanced Science and Technology                         | Vol. 29, No.4             | Scopus              |               |           |
| 6       | Improving the Efficiency of Load Balancing and Site Selection of Electric Vehicle Charging Station using Dijkstra Algorithm | Bhardwaj, P., Bali, V. and Kaur, J. (2020)                 | JOURNAL OF CRITICAL REVIEWS  | Vol. 7, Issue. 19,        |                     |               |           |

|    |   |  |  |                               |        |  |  |
|----|---|--|--|-------------------------------|--------|--|--|
| 7  | Early Prediction and Diagnosis for Cancer Based on Clinical and Non-Clinical Parameters: A Review             | Nagar, R., Aggarwal, D., Saxena, U. R. and Bali, V. (2020) | International Journal of Grid and Distributed Computing                              | Vol. 13, No. 1                | WoS    |  |  |
| 8  | Similarity Based DNA Compression Algorithm  | Banerjee, K. and Bali, V. (2020)                           | EAI Endorsed Transactions on Pervasive Health and Technology                         | Volume 5, Issue 20(5)         | Scopus |  |  |
| 9  | Significance of Non-Academic Parameters for Predicting Student Performance Using Ensemble Learning Techniques | Aggarwal, D., Mittal, S. and Bali, V. (2020)               | International Journal of System Dynamics Applications (IJSDA)                        | Vol. 10, Issue 3, Article 3   | WoS    |  |  |
| 10 | User Based Load Visualization of Categorical Forecasted Smart Meter Data using LSTM Network                   | Kumar, A., Toorang, P. and Bali, V. (2020)                 | International Journal of Multimedia Engineering and Management                       | Volume 11, Issue 1            | WoS    |  |  |
| 11 | A Novel Approach for Wind Speed Forecasting Using LSTM-ARIMA Deep Learning Models                             | Bali, V., Kumar, A. and Gangwar, S. (2020)                 | International Journal of Agricultural and Environmental Information Systems (IJAEIS) | Volume 11, Issue 3            | WoS    |  |  |
| 12 | Permissioned Blockchain Model for End-to-End Trackability in Supply Chain Management                          | Khanna, T., Nand, P. and Bali, V. (2019)                   | International Journal of E-Collaboration (IJeC)                                      | Volume 16, Issue 1            | Both   |  |  |
| 13 | An Insight into Machine Learning Techniques for Predictive Analysis and Feature Selection                     | Aggarwal, D., Bali, V. and Mittal, S. (2019)               | International Journal of Innovative Technology and Exploring Engineering (IJITEE)    | Vol. 8, Issue 9S, pp. 342-349 | Scopus |  |  |
| 14 | Data Warehouse Testing And Security: A Conspectus   | Mathur, S., Bali, V., Gupta, S.L., Pahwa, P., (2019)       | International Journal of Innovative Technology and Exploring Engineering (IJITEE)    | Volume-8, Issue-9S            | Scopus |  |  |
| 15 | A Comparative Analysis Of Classification Algorithms for   | Aggarwal, D., Mittal, S. and Bali, V                       | International Journal of Recent  | Volume-8, Issue-2S7           | Scopus |  |  |

|    |  |  |   |   |      |  |  |
|----|--|--|---|---|------|--|--|
|    | Predicting The Performance of Students                                 |  | Technology and Engineering (JRTE)   |   |      |  |  |
| 16 | Comparative Analysis of Wind Speed Forecasting Using LSTM and SVM      | Gangwar, S., <b>Bali, V.</b> and Kumar, A.         | EAI Endorsed Transactions on Scalable Information Systems                               | Vol. 7, Issue 25(1), pp.1-9, <b>ISSN:</b> 2032-9407 | WoS  |  |  |
| 17 | A Survey on Fatigue Detection of Workers using Machine Learning        | Yadav, N., Banerjee, K. and <b>Bali,</b> (2020)    | International Journal of E-Health and Medical Communications (IJEHMC), IGI Publications | Vol. 11, Issue 3                                    | Both |  |  |
| 18 | Fatigue Detection of Workers using Supervised Learning                 | Yadav, N., Banerjee, K. and <b>Bali,</b> (2019)    | Biological Forum-International Journal  | Vol. 11   | WoS  |  |  |
| 19 | Storage and Retrieval of Software Component using Hadoop and MapReduce | Singh, S. and <b>Bali, V.</b> (2017)               | International Journal of Engineering and Technology (IJET)                              | Vol. 9  |      |  |  |
| 20 | A Novel GSA-GVM Attribute Selection Algorithm for Movie Recommendation | Arora K., Singh S. and <b>Bali V.</b> (2017),      | International journal of scientific research engineering and technology                 | Vol. 6, Issue 10,                                   |      |  |  |
| 21 | Detection of Attacks in Static Wireless Sensor Networks                | Juneja S., Singh S. and <b>Bali V.</b> (2017)      | International Journal of Advanced Research in Computer Science                          | Vol. 8, No.7  |      |  |  |
| 22 | Multi-Level Security Mechanism for Audio Steganography                 | Gupta S., Dhingra D., Gupta S.C. and <b>Bali V</b> | International Journal of Advanced Research in Education & Technology (IJARET)           | Vol. 4, Issue 1                                     |      |  |  |
| 23 | Pragmatic Analysis on Malware Classification                           | Anjali, <b>Bali V.</b> and Singh S., (2017)        | International Journal of Research in Applied Science in Engineering and Technology      | Vol. 5, Issue 7                                     |      |  |  |
| 24 | Recommendation System: A Review Report                                 | Arora K., <b>Bali V.</b> and Singh S. (2017)       | International Journal of Advanced Research in   | Vol. 8, No.7,                                       |      |  |  |

|    |  |  |   |                    |        |  |  |
|----|--|--|---|--------------------|--------|--|--|
|    |  |  | Computer Science  |                    |        |  |  |
| 25 | A Brief Survey on Web Application Performance Testing Tools Literature Review  | Arora I. and <b>Bali V.</b> (2015)                       | International Journal of Latest Trends in Engineering and Technology (IJLTET) | Vol. 5, Issue 3,   |        |  |  |
| 26 | Generating Test Cases from UML Class and Sequence Diagrams   | Kaur D. and <b>Bali V.</b> (2015)                        | International Journal of Research in Computer Science and Electronics,        | Vol. 4, Issue 1,   |        |  |  |
| 27 | COTS Evaluation & Selection Process in Design of Component based Software System: An Overview and Future Direction       | <b>Bali, V.</b> and Madan, S. (2015)                     | Global Journal of Computer Science and Technology                             | Vol. 15, Issue 6   |        |  |  |
| 28 | Identifying And Classifying Factors For Evaluating The Success Of Software Developed By COTS Components                  | <b>Bali, V.</b> and Madan, S. (2015)                     | International Journal of Current Engineering and Technology                   | Vol. 5, No. 4      |        |  |  |
| 29 | A Study of Critical Success Factors in COTS based Software Development: TOPVEC Framework                                 | <b>Bali, V.</b> and Madan, S. (2015)                     | Wulfenia Journal,   | Vol. 22, No. 8     |        |  |  |
| 30 | Optimal Component Selection Based on Cohesion and Coupling for Component based Software System under Build-or-Buy Scheme | Jha P.C., <b>Bali V.</b> , Narula S. and Kalra M. (2014) | Journal of computational sciences, Elsevier                                   | Vol. 5, pp 233-242 | Scopus |  |  |
| 31 | Muti-Criteria Optimization Approach for Component Selection under Build-or-Buy Scheme                                    | Jha P.C., <b>Bali V.</b> , Narula S. and Kalra M. (2013) | Software Engineering : An International Journal (SEIJ)                        | Vol. 3, No. 2      |        |  |  |

|    |  |                                   |   |                |  |  |  |
|----|--|-----------------------------------|---|----------------|--|--|--|
| 32 | Goal Programming Approach for Selection of COTS Components in Designing a Fault Tolerant Modular Software System under Consensus Recovery Block Scheme | Jha P.C. and Bali V.              | International Journal of Computer and Communication Technology(IJ CCT)          | Vol. 3, No. 1  |  |  |  |
| 33 | Component Selection in Designing Fault Tolerant Modular Software systems: An Overview and Future Directions  | Jha P.C. and Bali V.(2010)        | International Journal of Science, Technology and Management                     | Vol. 3, No. 1  |  |  |  |
| 34 | Development of Fault Tolerant System By Optimal Selection of COTS Components under Consensus Recovery Block  | Bali V. and Srivastav V.K. (2010) | International Journal of Computer Engineering and Computer Application (IJCECA) | Vol. 1, No. 1, |  |  |  |

## ii.National Journals

| Sl. No. | Title of the paper | Name(s) of Author(s) | Name of the Journal | Volume No. Issue No. Year | WOS / Scopus / Both | Impact Factor | Publisher |
|---------|--------------------|----------------------|---------------------|---------------------------|---------------------|---------------|-----------|
| Nil     | -                  | --                   | -                   | -                         | -                   | -             |           |

## ii. Conferences

| Sl. No. | Title of the paper   | Name(s) of Author(s)                    | Name of the Conference  | Volume No. Issue No. Year                                | WOS / Scopus | Impact Factor | Publisher                          |
|---------|--|---|---|--|--------------|---------------|------------------------------------|
| 1       | Deep Learning based wind speed forecasting- A Review   | V. Bali, A. Kumar, S. Gangwar, (2019)   | International Conference, Confluence on Cloud Computing, Data Science & Engineering |  |              |               |                                    |
| 2       | IFSOM: A Two Phase Framework for COTS Evaluation and Selection                                     | Bali, V., Bali, S. and Madan, S. (2018) | International Conference on Communication, Computing and Networking (ICCCN-2018)    |  |              |               | Springer Nature Singapore Pte. Ltd |
| 3       | A Novel Approach for Blastit-Induced Fly Rock Predication Based on Particle Swarm Optimization and | Kumar N., Mishra B., and Bali V. (2018) | International Conference on Recent Advancement in Computers and Communication       | Chapter 3, Book Id: 448040_1_En, ISBN: 978-981-10-8197-2 |              |               | Networks and Systems               |

|    |   |  |   |   |  |  |  |
|----|---|--|---|---|--|--|--|
|    | Artificial Neural Network   |  |   |   |  |  | 34, Springer Nature Singapore Pte. Ltd |
| 4  | A Review on Sentiment Analysis”, International Conference on Communication  | Gupta S., Pandey A. and Bali V. (2017)                   | Computing and Networking (ICCCN-2017)   | ISBN: 978-8-193-3 8970-6.               |  |  |  |
| 5  | Genetic Programming and K-Nearest Neighbour Classifier based Intrusion Detection Model  | Malhotra S., Bali V. and Paliwal K.K. (2017)             | 7th International Conference on Cloud Computing, Data Science and Engineering                           | E-ISBN: 978-1-5090-3519-9               |  |  |  |
| 6  | A Brief Review of Methods for Prediction of Flyrock in Blasting   | Kumar N., Mishra B., and Bali V. and Paliwal K.K. (2017) | International Conference on Communication, Computing and Networking (ICCCN-2017)                        | ISBN: 978-8-193-3 8970-6                |  |  |  |
| 7  | Multi-criteria Optimization Approach for Component Selection in COTS Based Software System  | Jha P.C., Bali V., Narula S. and Kalra M. (2013)         | International Conference on Leveraging Operations and IT for Sustainable Development (ICOIT-2013)       | Vol. 1, pp. 1-11,                       |  |  | Niruta Publications                    |
| 8  | Multi-criteria Optimization Approach for Component Selection Incorporating ICD and Reliability for Component Based Software System                      | Jha P.C., Bali V., Narula S. and Kalra M. (2012)         | International Conference on Optimization Modelling and Applications (OPTIMA- 2012)                      | ISSN: 2249-9342                         |  |  |  |
| 9  | Optimal Component Selection Based on Cohesion and Coupling for Component based Software System  | Jha P.C., Bali V., Narula S. and Kalra M. (2014)         | Proceedings of the Second International Conference on Soft Computing for Problem Solving (SocProS 2012) | pp. 1499-1512, ISBN: 978-81-322-1601-8. |  |  | SpringerLink                           |
| 10 | A Chance Constraint Goal Programming Approach to Component Selection for a Fault Tolerant Modular Software System under Consensus Recovery Block Scheme | Jha P.C., <b>Bali V.</b> and Malik S.C. (2010)           | International conference on “Operational Research for Urban and Rural Development (ORURD)               |   |  |  |  |

|  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|
|  |  |  |  |  |  |  |  |
|--|--|--|--|--|--|--|--|

### iii. Workshops /Conferences Attended

| Sl. No. | Name of the workshop / Conference  | Organizer   | Date       |
|---------|--|---|------------|
| 1       | Recent Advances in Computer Science and Allied Domains                                       | Sharda University   | 08-06-2020 |
| 2       | Global Pandemic Outbreak: Role of Technology & Automation                                    | JSS Academy of Technical Education                                  | 01-06-2020 |
| 3       | Cyber Security & Malware Analysis  | CMR Engineering College, Hyderabad.                                 | 25-05-2020 |
| 4       | Qualitative Research, Blogs Writing & Neuro Science in the Outbreak of COVID-19              | JSS Academy of Technical Education                                  | 20-05-2020 |
| 5       | NBA  | Dr. D. Y. Patil School of Engineering & Technology, Pune            | 19-05-2020 |
| 6       | Student Induction  | Graphic Era Hill University, Bhimtal Campus, Nainital, Uttarakhand. | 17-06-2019 |
| 7       | Soft-Computing: Techniques, Tools & Applications   | JSS Academy of Technical Education                                  | 11-06-2018 |
| 8       | Optimization using MATLAB through ICT  | NITTTR Chandigarh   | 17-07-2017 |
| 9       | Virtual Labs   | Institute of Engineering and Technology, Panipat                    | 29-03-2017 |
| 10      | Data Repository and Storage Management   | NITTTR Chandigarh   | 01-08-2016 |
| 11      | Total Quality Management, ISO 9000 and Basics of NBA Accreditation in Technical Institutions | NITTTR Chandigarh   | 05-05-2014 |
| 12      | “Agile Software Development Methodology”   | RKGIT Ghaziabad   | 03-05-2008 |
| 13      | “Adhyayan”   | IMS Engineering College, Ghaziabad                                  | 14-10-2006 |
| 14      | Foundational Computer Science Courses – An Industry Perspective                              | INFOSYS Technologies Limited  | 20-2-2005  |

### iv. Workshops / Conference (Organized)

| Sl. No. | Name of the workshop / Conference                         | Organized by   | Date                      | Role      |
|---------|---|--|---------------------------|-----------|
| 1       | "Soft-Computing: Techniques, Tools & Applications"        | Dr. A.P.J. Abdul Kalam Technical University, Lucknow   | 11.06.2018 to 15.06.2018  | Organizer |
| 2       | Global Pandemic Outbreak: Role of Technology & Automation | JSS Academy of Technical Education, Noida  | 01.06.2020 to 05.06.2020  | Organizer |
| 3       | “Cloud Computing”   | Panipat Institute of Engineering and Technology  | 22.03.2017                | Organizer |
| 4       | "Cyber Crime and Forensic Tools"                          | Panipat Institute of Engineering and Technology, Panipat in collaboration with NITTTR Chandigarh | 06.02.2016 to 10.02.2016. | Organizer |
| 5       | Cloud Computing Through ICT"                              | Panipat Institute of Engineering and Technology, Panipat in collaboration with NITTTR Chandigarh | 05.12.2016 to 09.12.2016. | Organizer |
| 6       | Cyber Crime and Forensic Tools"                           | Panipat Institute of Engineering and Technology, Panipat in collaboration with NITTTR Chandigarh | 27.01.2014 to 31.01.2014  | Organizer |

### v. Conference Attended (those sponsored by AICTE / ISTE /IETE /TEQIP or any other sponsoring body)

| Sl. No. | Name of the workshop / Conference | Organizer | Date |
|---------|-----------------------------------|-----------|------|
|         |                                   |           |      |

**9. Details of NPTEL / COURSERA courses completed**

| Sl. No. | Name of the subject | Organized by | Date of completion / Award | Grade / Marks |
|---------|---------------------|--------------|----------------------------|---------------|
| 1       | Software Testing    | NPTEL        | 2020                       | 77%           |

**10. Membership of Professional Bodies:**

|  |              |
|--|--------------|
| Professional Membership of IEEE (Senior Member)                            | 94987748     |
| Life Time Member of ISTE   | LM 58487     |
| Annual Member of Computer Science Teachers Association                     | 198357986680 |
| Life Time Member of International Computer Science and Engineering Society | 7336         |
| Life Time Member of Institute for Engineering Research and Publication     | PMIN19435820 |

**11. Any other information you will like to share about your professional experience**