LAXMIKANT SHARMA, PHD

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RESEARCH PUBLICATIONS

- Sharma, L., Chellapilla, V.L. & Chellapilla, P (2023). Socio-inspired evolutionary algorithms: a unified framework and survey. *Soft Computing* 27(19): 14127–14156. DOI: https://doi.org/10.1007/s00500-023-07929-z
- Sharma, L., Chellapilla, V.L. & Chellapilla, P. "Improved Imperialist Competitive Algorithm for Selection Problems in Combinatorial Optimization." (Communicated to ICTACT Soft Computing).
- Sharma, L., Chellapilla, V.L. & Chellapilla, P. "Vedic Society Optimizer (VSO): A new socioinspired metaheuristic for real-world engineering optimization." (Communicated to Knowledge-Based Systems).
- Laxmikant, Vasantha Lakshmi, C., Patvardhan, C. (2023). QKPICA: A Socio-Inspired Algorithm for Solution of Large-Scale Quadratic Knapsack Problems. In: Singh, P., Singh, D., Tiwari, V., Misra, S. (eds) Machine Learning and Computational Intelligence Techniques for Data Engineering (pp. 695-708). Lecture Notes in Electrical Engineering, vol 998. Springer, Singapore. DOI: https://doi.org/10.1007/978-981-99-0047-3_59
- Sharma, L. & Vasantha Lakshmi, C. & Patvardhan, C.. (2023). Design of optimal trusses using novel Socio-inspired Evolutionary Algorithm. *International Conference on Recent Advancement and Innovation in Engineering & Technology*, Lucknow.
- Singh, S., Laxmikant, Chellapilla, V.L. & Chellapilla, P. "Read aloud text in Indian languages with NAO Robot." 6th Int. Conf. on Dayalbagh (Art) Science (& Engineering) of (Evolutionary/Re-Evolutionary) Consciousness (DSC).

Talks and Presentations

- Socially-inspired Evolutionary Algorithms in One-Day UGC-SAP Seminar on "Advances in Nano and Bio Sciences," March 27, 2019, Department of Physics and Computer Science, Dayalbagh Educational Institute (DEI), Agra, India.
- "Fundamentals of Artificial Intelligence and its Applications in Education"

AWARDS AND SCHOLARSHIPS

- UGC Junior Research Fellowship (JRF): July 2019 July 2022
- UGC Senior Research Fellowship (SRF): July 2022 July 2024

ACADEMIC CONTRIBUTIONS

- Designed and developed the official LATEX thesis template for Dayalbagh Educational Institute, enabling standardized formatting for MSc and PhD thesis submissions across departments.
- Created display posters for the department highlighting faculty, infrastructure, and research achievements; these are showcased on departmental boards and used during official visits and academic events.
- Assisted junior students and peers with thesis formatting, referencing (BibTEX), and technical documentation using LATEX.
- Maintained and organized the research lab infrastructure during PhD, ensuring proper functioning of systems, software environments, and computing resources.

- Provided technical support to lab members, including setup of simulation tools, programming environments, and research-related software (e.g., MATLAB, Python, LATEX).
- Ensured data backup and version control using Git and local servers, improving collaboration and reproducibility of research code.
- Guided BTech and BSc (Computer Science) students in the development and deployment of their academic and final-year projects, providing support in software design, coding, testing, and deployment.

TEACHING EXPERIENCE

APR 2019 - MAR 2024 Teaching Assistant

Dayalbagh Educational Institute, Agra

Conducted undergraduate lab sessions and tutorials in Computer Science. Taught courses in C Programming and Data Structures. Assisted

faculty with student evaluations.

Robotics Involvement: Programmed and operated the NAO humanoid robot for educational

demonstrations and research projects involving speech, motion, and

interaction.

Jan 2017 – Feb 2018 Teacher (Computer Science)

Lord Krishna Institute Of Education, Mathura, UP

Taught Computer basics to D.El.Ed (Diploma in Elementary Educa-

tion) students.

WORK EXPERIENCE

APR 2016 – Nov 2016 Jr. Android Developer

VCareAll Solutions Pvt. Ltd., New Delhi

Developed 6 Android applications independently and contributed to 8 additional projects. Recognized with the *Star of the Month* award in

the final month of tenure.

EDUCATION

MAR 2018 - present Ph.D. in Computer Science (Thesis Submitted)

Dayalbagh Educational Institute, Agra

Topic: Quantum-inspired Vedic Society Algorithms

Interests: Evolutionary Computation, Soft Computing, Quantum Computing,

Socio-inspired Evolutionary Computation, Combinatorial optimization

Aug 2014 - May 2016 Master of Computer Applications (MCA)

Dr. A.P.J. Abdul Kalam Technical University, Lucknow

Projects: Two major academic projects completed

Placement: Campus selection as Jr. Android Developer

Grade: 76.85%

Aug 2011 – May 2014 B.Sc. in Computer Science

Dr. Bhimrao Ambedkar University, Agra

Grade: 59.27%

Aug 2009 – Mar 2011 Intermediate (UP Board)

Grade: 76.20%

July 2008 – Mar 2009 High School (UP Board)

Grade: 64.83%

TECHNICAL SKILLS

Programming languages: C/C++, Java, JavaScript, Python, MATLAB

Web development: HTML5, CSS3

Tools & Environments: Git, Docker, Qt Creator, LATEX, gnuplot, MS Office

IDEs used: Eclipse, Android Studio, Visual Basic Studio, TFXstudio, CLion, Py-

Charm, MATLAB

LANGUAGES

English: Proficient
Hindi: Native
Sanskrit: Intermediate

Interests and Activities

Academic Interests: CS, Programming, Sanskrit, Mathematics, Electronics, and Literature

Hobbies: Reading, playing chess, and solving logical puzzles like the Rubiks Cube

Personal Passion: Enthusiastic about exploring emerging technologies and using comput-

ing tools for research, learning, and problem-solving

REFEREES

• Prof. Chellapilla Patvardhan

Director, Dayalbagh Educational Institute (DEI), Agra Dean, Faculty of Engineering Professor & Head, Department of Electrical Engineering Email: cpatvardhan [at] dei.ac.in

• Prof. Chellapilla Vasantha Lakshmi

Professor, Department of Physics and Computer Science Dayalbagh Educational Institute (DEI), Agra *Email:* vasanthalakshmi [at] dei.ac.in

• Dr. Vuppuluri Prem Prakash

Assistant Professor, Department of Electrical Engineering Dayalbagh Educational Institute (DEI), Agra *Email:* vpremprakash [at] dei.ac.in

• Prof. Sukhdev Roy

Professor & Head, Department of Physics and Computer Science Dayalbagh Educational Institute (DEI), Agra Email: sukhdevroy [at] dei.ac.in