Degrees

- Ph.D., Computer Science and Engineering, Erasmus Mundus Fellow, Mälardalen University, Sweden - VIT University, India.
- M.S., Information Technology, MS University (now Anna University), Tirunelveli, India
- B.E., Electrical and Electronics Engineering, Bharathiar University (now Anna University), Coimbatore, India

Postdoctoral Training

- Postdoctoral Training in Computer Science and Engineering, University at Buffalo, USA — Schlumberger Faculty for the Future Postdoctoral Award.
- Postdoctoral Training in Computer Science and Engineering, University of Waterloo, Canada — Schlumberger Faculty for the Future Postdoctoral Award.

Biography

Dr. Vijayalakshmi Saravanan is an Assistant Professor in the Department of Electrical and Computer Engineering at the University of Texas at Tyler and an Adjunct Professor at the University of Texas at Dallas (UTD). She previously served as a Visiting Faculty Scientist at Brookhaven National Laboratory (BNL), New York. She earned her Ph.D. in Computer Science and Engineering through the Erasmus Mundus EU Fellowship, conducting research at Mälardalen University (Sweden) and Ryerson University (Canada), and completed postdoctoral research at the University at Buffalo (SUNY) and the University of Waterloo as a Schlumberger Faculty for the Future Fellow.

Her research focuses on high-performance computing with AI (HPC-AI), power-aware processor design, big data analytics, and hardware/software co-design for multicore systems. As Principal Investigator, she leads a DOE ASCR-funded project on HPC and machine learning-driven storage for multimodal scientific data, along with a UT System Rising Star Award, totaling over $1M in funding, and has also contributed to DOE's SRP-HPC Fellowship.

An ACM Distinguished Speaker and Senior Member of ACM and IEEE, Dr. Saravanan serves on the DISCOVER-US Steering Committee, has held leadership roles with IEEE WIE, Chair, N2WOMEN, and actively promotes STEM through Women in Big Data, Women in Computer Architecture, and Women in HPC.

Research Interests

- Computer Architectures and High-Performance Computing Systems
- HPC–AI integration with machine learning (ML) and deep learning (DL) workloads
- Power-aware processor design and performance optimization on multicore/multiprocessor systems
- Big data analytics with a distributed in-memory multiprocessor architecture
- Hardware/software co-design for high-performance computing
- Virtualization and cloud environments for scalable HPC
- Performance modeling and simulation acceleration