

Dr. SHASHI KANT DARGAR

Professor / Associate Professor — Electronics & Communication Engineering

PostDoc (UKZN, South Africa) • Ph.D. • M.Tech. • B.E.

SMIEEE • Fellow IETE • IEEE-HKN • MIE • LMISTE • IUCEE Honorary Member

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74+	38	16.3	7	5	8	20+
Total Publications	Scopus/SCI Journals	Highest IF	Patents (4 Granted)	Books Published	Book Chapters	Years of Teaching

ACADEMIC PROFILE SUMMARY

An accomplished academic with 20+ years of comprehensive teaching, research, and institutional governance experience across premier institutions in India and South Africa. Currently serving as Associate Professor (Senior Grade) and Deputy Director, IQAC at Kalasalingam Academy of Research and Education (KARE), an institution ranked 28th in NIRF 2025. Holds a PostDoc from the University of KwaZulu-Natal (QS World Ranking ≤ 500), South Africa, Ph.D. (CGPA 8.52/10), M.Tech., and B.E. in Electronics & Communication Engineering. Specialises in VLSI Design, Semiconductor Device Modelling, Thin-Film Transistors, and Nanometer-Scale CMOS. Has 74+ publications across Scopus/SCI journals and international conferences, 7 patents (4 granted — UK & India), 5 books (3 with CRC Press/Taylor & Francis, 2 with LAP Lambert), 8 book chapters (Wiley, CRC Press), and active funded research and consultancy. A Senior Member of IEEE, Fellow of IETE, and inducted member of the prestigious IEEE-HKN Honour Society.

EDUCATIONAL QUALIFICATIONS

Qualification	Institution	Year	Result
Post-Doctoral Research	School of Engineering, University of KwaZulu-Natal (UKZN), Durban, South Africa [QS World Rank ≤ 500]	Jun 2018 – Apr 2021	—
Ph.D. – Electronics Engineering	Sir Padampat Singhanian University, Udaipur, India Supervisor: Dr. Jitendra Kaushal Srivastava	Awarded 28 Oct 2017	CGPA 8.52/10.00
M.Tech. – Digital Communication	Rajasthan Technical University, Kota, Rajasthan	Jul 2013	First 63.00%
B.E. – Electronics & Communication	University of Rajasthan, Jaipur, Rajasthan	Sept 2005	First 69.48%
Polytechnic Diploma – Electronics	Birla Technical Training Institute, Pilani (BTER, Jodhpur)	Apr 2002	First 69.74%

- Additional Certification:** NSQF Certification — Foundational and Advanced Training on Semiconductor Manufacturing. Electronics Sector Skills Council of India (ESSCI), Government of India. Score: 74%. Awarded: March 2026.

ACADEMIC EMPLOYMENT HISTORY (20+ YEARS)

Designation	Institution / Department	Period
Associate Professor (Senior Grade) & Deputy Director, IQAC	Dept. of ECE, Kalasalingam Academy of Research and Education (KARE) Krishnankoil, Tamil Nadu NIRF Rank: 28 (2025), 36 (2024) Pay Level 13A Appointment Type: Regular	01 Jul 2021 – Present
Post-Doctoral Fellow	Dept. of Electronic Engineering, Howard College Campus University of KwaZulu-Natal (UKZN), Durban, South Africa [QS World Rank ≤ 500] Contractual	28 Jun 2018 – 03 Apr 2021
Assistant Professor (Grade A / B / C)	Dept. of ECE, Sir Padampat Singhania University (SPSU), Udaipur Regular Appointment NIRF Rank: 97 (2016)	01 Sep 2014 – 15 Jun 2018
Lecturer	Dept. of ECE, Sir Padampat Singhania University (SPSU), Udaipur, India Regular Appointment	08 Oct 2007 – 31 Aug 2014
Lecturer	Dept. of ECE, Institute of Technology & Management (ITM), Bhilwara, Rajasthan Regular Appointment	21 Jul 2005 – 25 Sep 2007

RESEARCH PROFILE

Core Research Areas

VLSI Design & Technology	Thin-Film Transistors (TFT / IGZO / ZnO / GaN)	Semiconductor Device Modelling & Simulation
Nanometer CMOS / FinFET / GAA-FET	Perovskite & Thin-Film Solar Cells	IoT, AI & Machine Learning Applications
Carbon Nanotube FETs & Photonics	Low-Power VLSI & Circuit Optimisation	Engineering Education & Pedagogy

Ph.D. Research Summary

Title: *Simulation of Single and Multilayer Thin Film Transistor using Sentaurus TCAD for Investigation of Device Performance*

Supervisor: Dr. Jitendra Kaushal Srivastava (IIT BHU, Varanasi) | Institution: Sir Padampat Singhania University | Awarded: 28 Oct 2017 | CGPA: 8.52/10.00

Doctoral research focused on design and simulation of single and multilayer thin-film transistor (TFT) structures using Synopsys Sentaurus TCAD. Novel device structures — ZnO, GaN, and ZnO-HfO₂ multilayer stacks — were analysed to enhance electrical characteristics for display, sensor, and low-power nanoelectronic applications. Results demonstrated significant performance improvements, providing actionable design guidelines for next-generation TFTs in AMOLED/AMLCD displays and flexible electronics. Thesis listed in national repository: Shodhganga-INFLIBNET (handle/10603/191676).

RESEARCH PUBLICATIONS

A. Peer-Reviewed Journal Publications (Selected — Scopus / SCI)

1. **[J1]** Gupta N., Ravisankar M., Surjeet, Dargar S.K. Enhanced reliability in wireless sensor networks: federated learning with Bayesian weighted random forest for secure and privacy-preserving threat detection. *Wireless Networks* (Springer). 2025. DOI: 10.1007/s11276-025-03977-5
2. **[J2] IF: 5.3** Singh A., Gupta S., Goel L., Agarwal A.K., Dargar S.K. Archimedes optimization-based Elman Recurrent Neural Network for detection of post-traumatic stress disorder. *Biomedical Signal Processing and Control* (Elsevier). 90, 105806. 2024.
3. **[J3]** Sivapragasam C., Dargar S.K., Natarajan N. Enhancing Engineering Education Through Pedagogical Change: Application to Abstract. *Journal of Engineering Education Transformations*. 37(SI2). 2024. (Scopus)
4. **[J4]** Rajesh K., Sivapragasam C., Dargar S.K. AI-Enhanced Personalized Learning Practices in Higher Engineering Institutes. *J. Engg. Education Transformations*. 37(SI2). 2024. (Scopus)
5. **[J5]** Gupta A., Pavani M., Dargar S.K., Dargar A., Chohan A.S. Improved Extreme Learning Machine Based Hunger Games Search for Automatic IP Configuration and Duplicate Node Detection. *Journal of Communications*. 19(3). 2024. (Scopus)
6. **[J6] IF: 16.3** Chakraborty S., Kumar R., Nayak J., Dargar S.K. et al. Green synthesis of MeOH derivatives through in situ catalytic transformations of captured CO₂ in a membrane integrated photo-microreactor system. *Renewable and Sustainable Energy Reviews*. 182, 113417. 2023.
7. **[J7] IF: 2.8** Bhojak V., Jain P.K., Bhatia D., Dargar S.K. et al. Numerical Investigation of Power Conversion Efficiency of Sustainable Perovskite Solar Cells. *Electronics* (MDPI). 12(8):1762. 2023.
8. **[J8] IF: 3.8** Vankayalapati H.D., Kuchibhotla S., Chadalavada M.S., Dargar S.K. et al. A Novel Zernike Moment-Based Real-Time Head Pose and Gaze Estimation Framework. *Sensors* (MDPI). 22(21):8449. 2022.
9. **[J9] IF: 2.33** Misra A., Birla S., Singh N., Dargar S.K. High-Performance 10-Transistor Adder Cell for Low-Power Applications. *IETE Journal of Research* (Taylor & Francis). 2022. DOI: 10.1080/03772063.2022.2043785.
10. **[J10] IF: 3.6** Singh A., Dargar S.K. et al. Evolving Long Short-Term Memory Network-based Text Classification. *Computational Intelligence and Neuroscience* (Hindawi). 2022.
11. **[J11]** Dargar S.K., Dargar A., Srivastava J.K., Birla S. Analytical Modeling of Cylindrical Surrounding Double-Gate MOSFET Including Channel Quantum Confinement. *Silicon* (Springer). 14, pp.7951–7960. 2022. (Scopus)
12. **[J12] IF: 3.9** Dargar S.K., Srivastava V.M. Design of Double-Gate Tri-Active Layer Channel based IGZO TFT for RFID Rectifier. *IEEE ACCESS*. 8, pp.194652–194662. 2020. DOI: 10.1109/ACCESS.2020.3034031.
13. **[J13]** Dargar S.K., Srivastava V.M. Current Challenges and Opportunities in Computation and Simulation to Align 4iR Paradigm Shift. *IJEEI*. 8(3):582–592. 2020. DOI: 10.11591/ijeei.v8i3.1651. (Scopus)
14. **[J14]** Dargar S.K., Srivastava V.M. Moisture Content Investigation in Soil Samples Using Microwave Dielectric Constant Measurement. *IJECE*. 10(1):704–710. 2020. DOI: 10.11591/ijece.v10i1.pp704-710. (Scopus)
15. **[J15] IF: 1.6** Dargar S.K., Srivastava V.M. Design and Analysis of Novel Tri-Active Layer Channel Amorphous-IGZO TFT. *IET Micro & Nano Letters*. 14(13):1293–1297. 2019. DOI: 10.1049/mnl.2019.0293. (Scopus)
16. **[J16] IF: 1.65** Dargar S.K., Srivastava V.M. Design and Analysis of IGZO TFT for AMOLED Pixel Circuit. *Heliyon* (Elsevier). 5(4):e01452. 2019. DOI: 10.1016/j.heliyon.2019.e01452. (Scopus)
17. **[J17]** Dargar S.K., Srivastava V.M. Performance Analysis of High-k Dielectric based Silicon Nanowire GAA-TFET. *IJEETC*. 8(6):340–345. 2019. DOI: 10.18178/ijeetc.190302. (Scopus)
18. **[J18]** Dargar S.K., Srivastava V.M. Analysis of Short Channel Effects in Multiple-Gate Carbon Nanotube FETs. *JESTEC*. 14(6):3282–3293. 2019. (Scopus)
19. **[J19]** Dargar S.K., Srivastava J.K., Bharti S., Nyati A. Performance Evaluation of GaN Based TFT using TCAD Simulation. *IJECE*. 7(1):144–151. 2017. DOI: 10.11591/ijece.v7i1.pp144-151. (Scopus)

... and 19 additional Scopus/SCI indexed journal publications.

B. Books Authored / Edited (5 Books — CRC Press / Wiley / LAP Lambert)

20. **[B1]** Singh N., Dargar S.K., Birla S., Jeyanathan J.S. (Eds.) Thermal Imaging and Computational Intelligence Techniques in Disease Detection. CRC Press (Taylor & Francis Group). 2026. ISBN: 9781003585268.
21. **[B2]** Dargar S.K., Birla S., Dargar A., Singh A., Ganeshaperumal D. (Eds.) Sustainable Materials and Technologies in VLSI and Information Processing. CRC Press (Taylor & Francis Group). 2025. DOI: 10.1201/9781003641551. ISBN: 978-1-0410-7651-3.
22. **[B3]** Birla S., Dargar S.K., Singh N., Sivakumar P. (Eds.) Low Power Designs in Nanodevices and Circuits for Emerging Applications. CRC Press (Taylor & Francis). 2023. DOI: 10.1201/9781003459231. ISBN: 9781032412771.
23. **[B4]** Dargar S.K., Sabir M., Dargar A. Programmable Logic Block Using SRAM and CNFET Technology. LAP Lambert Academic Publishing. 2023. ISBN: 9786206145866.
24. **[B5]** Dargar S.K., Srivastava J.K. Pruning Technique of ANN for Proficient Active Noise Cancellation: An Experimental Study. LAP Lambert Academic Publishing. 2016. ISBN: 9783659968594.

C. Book Chapters (8 Chapters — Wiley, CRC Press / Taylor & Francis)

25. **[C1]** Sivakumar P., Dargar S.K., Harikrishnan P. Technology Computer-Aided Design (TCAD) for Simulation of Advanced Transistor Design. In: Micro and Nano Semiconductor Devices for Digital, Analog and Sensor Design Technology. John Wiley & Sons. 2026. ISBN: 9781394307319.
26. **[C2]** Dargar S.K., Lakshmi Thirupathamma M., Sarath Chandra D., Saranya Thejaswi G., Ram Teja A. Early Diagnosis of Chronic Kidney Disease Through Machine Learning Techniques. Chap. 20. In: [B2]. CRC Press. 2025. DOI: 10.1201/9781003641551-20.
27. **[C3]** Surjeet, Pandey J., Phade G., Mishra S., Dargar S.K., Gupta N. Latest Trends in Drug Research of Diabetes Using AI ML: An Exploration. Chap. 69. In: [B2]. CRC Press. 2025. DOI: 10.1201/9781003641551-69.
28. **[C4]** Adhi Lakshmi, Dargar S.K., Bhuvaneshwary N. FPGA-Based Reconfigurable Hardware Implementation for Data Classifiers. Chap. 76. In: [B2]. CRC Press. 2025. DOI: 10.1201/9781003641551-76.
29. **[C5]** Tripathi A., Sai Ram Reddy B., Manikanta Reddy K., Kiran Kumar Reddy B., et al., Dargar S.K., Goyal A. Assistive Cane Featuring Vibration-based Obstacle Detection for Visually Challenged. Chap. 75. In: [B2]. CRC Press. 2025. DOI: 10.1201/9781003641551-75.
30. **[C6]** Balaji Prabhakar A., Naveen Kumar M., Dargar S.K., Charles Pravin J. Optimizing Clock Tree Synthesis for Low-Power, Glitch-Free Digital Circuits Using Single and Multi Clock Tree Techniques. Chap. 79. In: [B2]. CRC Press. 2025. DOI: 10.1201/9781003641551-79.
31. **[C7]** Tellabati Abhinav, Poorna Chandra Rao S., Bhargava Rayudu P., Vaheed S., Dargar S.K. Design of Multi-Band Microstrip Antenna for WLAN and WiMAX Applications. Chap. 17. In: [B2]. CRC Press. 2025. DOI: 10.1201/9781003641551-17.
32. **[C8]** Indumathi G., Jeya Shiney J.R., Dargar S.K. Millimetre-Wave Beam-Space MIMO System for 5G Applications. Chap. 3. In: RF Circuits for 5G Applications: Designing with mmWave Circuitry. Wiley. 2023. DOI: 10.1002/9781119792949.ch3. ISBN: 9781119791928.

PATENTS (7 TOTAL — 4 GRANTED, 3 PUBLISHED)

#	Patent No. / Status	Title	Year / Country
1	No. 6420454 — GRANTED	Sensor-Enabled Farm Environment Monitoring Computing Device. First Inventor: Dr. Shashi Kant Dargar et al.	04 Feb 2025 United Kingdom
2	No. 436460-001 — GRANTED	IoT-Based Drug Dispensing Device for Targeted Therapy.	04 Nov 2024 India
3	No. 6392895 — GRANTED	Voice-Activated Virtual Assistant Computer Device. First Inventor: Dr. Shashi Kant Dargar et al.	30 Sep 2024 United Kingdom

4	No. 387427-001 — GRANTED	Face Mask and Body Temperature Sensing Device.	01 Jun 2023 India
5	No. 202131043795 A — Published	Intelligent and Automatic Plug-in Hybrid Electric Vehicles.	12 Nov 2021 India
6	No. 202141057944 — Published	Medical Chatbot and Method of Providing Voice Assistance.	17 Dec 2021 India
7	No. 202341054711 — Published	AI to Deliver Medications, Boost Immune Response and Kill Cancer Cells in Nanotechnology-Based Cancer Immunotherapy.	01 Sep 2023 India

FUNDED RESEARCH PROJECTS & CONSULTANCY

#	Project Title & Agency	Role	Fund / Status
1	Thin-Film Fabrication for Sustainable Solutions and Small-Scale Productization. Funding Agency: DST-FIST, Govt. of India	Co-Principal Investigator	INR 3 Crores (Submitted)
2	Low Power Device Simulation for GaN HEMT. Funding Agency: SERB-SURE, DST, Govt. of India	Co-Principal Investigator	INR 30 Lakhs (Under Review)
3	Video-on-Demand Server-Side Web Platform for Infotainment System with Internetless Auto-Synchronisation. Funding Agency: Sri Ramakrishna Health & Educational Trust, Vellore	Principal Investigator	INR 1,97,000 Completed (2023)
4	Text-Based IoT and AI Platform Integration for Automatic Solution Provider for Telecom Industry. Funding Agency: DATAINT Software Technologies Pvt. Ltd., Chennai	Principal Investigator	INR 45,000 Completed (2025)
5	Radio Access & Rural Technologies Project. Funding Agency: CRART Centre, University of KwaZulu-Natal, South Africa	Post-Doctoral Researcher	UKZN-funded Completed (2021)

TEACHING PROFILE (20+ YEARS)

UG Level Courses Taught	PG / Advanced Courses Taught
<ul style="list-style-type: none"> VLSI Technology Analog Electronics Semiconductor Devices Network Theory RF & Microwave Engineering Antenna & Wave Propagation Satellite Communication Basic Electrical & Electronics 	<ul style="list-style-type: none"> Thin Film Technology Hybrid Integrated Circuits VLSI Design & Testing Advanced Semiconductor Devices Device Modelling & Simulation Microelectronics Engineering Nanoelectronics & Nanotechnology TCAD Simulation Methods

Laboratories Developed & Managed

- New Lab (INR 46 L):** VLSI Laboratory (LDIC), KARE — Established June 2023; Infrastructure Cost: INR 46 Lakhs.
- RF & Microwave Engineering Laboratory, SPSU, Udaipur.

- Antenna Laboratory and Electronic Measurement & Instrumentation Lab, SPSU.
- Basic Electrical & Electronics Laboratory, SPSU.

RESEARCH SUPERVISION

Ph.D. Scholars

- Ravikant Vyas — Sangam University, Rajasthan. Title: Framework for Firewall and Intrusion Detection for Data Protection in IoT. Degree Awarded: 08 Aug 2025 (Co-Supervisor).
- Balaji Prabhakar A. — KARE, Tamil Nadu. Ongoing (Supervisor). Area: VLSI Design & Low-Power Circuits.
- Venkateswarulu Naik B. — University of South Florida, USA (Campus: Sarasota-Manatee). Post-Doctoral Co-Supervision. Ongoing.

PG / M.Tech. Theses Supervised (Selected)

- Design of Low Power Programmable Analog Filter Bank, SPS University, 2012–13.
- Design of High-Frequency 6th Order CMOS Band-Pass Filter Bank, SPS University, 2012–13.
- Decisive Filtering Selection Approach for Improved Performance Active Noise Cancellation System, Pacific University, 2013–14.
- Design and Implementation of Class AB Amplifier using CMOS, SPS University, 2012–13.

UG Projects Supervised — KARE (Selected; 14 total since 2021)

- Low-Power TinyML CNN Accelerator using Integrated Clock Gating for Edge Devices (2026) — Published, IEEE ICACRS 2025.
- Design of PnR Flow for Block Level Chip for Optimizing Leakage Power (2024) — Published, IEEE INCOS 2024.
- Early Diagnosis of Chronic Kidney Disease Through Machine Learning Techniques (2025) — Published as Book Chapter, CRC Press 2025.
- Analysis of Block Level PnR Flow to Increase Cell Density in Less Congested Regions (2023) — Published, IEEE CONIT 2023.
- AI-Powered Battery Management System for Electric Vehicles (2025); IoT Based Prototype for Smart Building Energy Usage (2023); Smart Dustbin with IoT Waste Management (2022) — and 7 more projects.

ADMINISTRATIVE & INSTITUTIONAL GOVERNANCE

Role	Institution	Period
Deputy Director, IQAC	Kalasalingam Academy of Research and Education (KARE), Tamil Nadu — Leading NAAC/NBA documentation, academic audits, OBE processes, and quality benchmarking.	<i>13 Feb 2023 – Present</i>
Secretary / Co-Convener, ICACDS-2024 (International Conference — Paris)	Organized at Université Paris-Saclay, 10 Rue Sextius Michel, 75015 Paris, France.	<i>9–10 May 2024</i>
Convener / Secretary, SMTVIP-2024 (International Conference)	Dept. of ECE, KARE, Krishnankoil, Tamil Nadu. Published as Book: CRC Press, 2025 (DOI: 10.1201/9781003641551).	<i>13–14 Dec 2024</i>
Secretary, CONSILIO-2021 (International Conference)	Shreyas Institute of Engineering & Technology, Hyderabad, in collaboration with OU CONSILIO Research Lab, Tallinn, Estonia.	<i>9–10 Jul 2021</i>
Program Officer, NSS	Sir Padampat Singhania University, Udaipur — National Service Scheme, Govt. of India. UG community engagement.	<i>2007–2018</i>

Nodal Officer, AISHE	SPSU, Udaipur — All India Survey of Higher Education, Directorate of College Education, Govt. of India.	2013–2018
Coordinator of Admissions	SPSU, Udaipur — Student counselling and intake coordination.	2013–2018
Lab In-charge	VLSI Lab (LDIC), KARE; Antenna & Microwave Lab, SPSU.	2007–Present
Member — Discipline & Anti-Ragging Committees	Sir Padampat Singhania University, Udaipur.	2007–2018

EDITORIAL, REVIEWING & CONFERENCE ROLES

Guest Editor

- Special Issue: 'Advances in Microelectronics, VLSI, and Low Power Design.' International Journal of Electrical and Electronic Engineering & Telecommunications (IJEETC). Scopus Indexed. August 2019.

Reviewer — International Journals (Selected)

IEEE Transactions on Electron Devices • IEEE Access • Renewable & Sustainable Energy Reviews (Elsevier) • PLOS ONE • Springer Nature — Circuits, Systems & Signal Processing • Materials Advances (RSC) • IET Micro & Nano Letters • SN Computer Science • IETE Journal of Research • IJECE • IJEEI • WSEAS Transactions • IEEE WiMob • IEEE ICACAT

Session Chair / Keynote / Resource Person (Selected)

- Keynote Speaker — 'Recent Trends and Challenges in TFT Technology.' CONSILIO 2021, Hyderabad / Estonia.
- Invited Talk — 'Application of Thin-Film Transistors in Transparent and Flexible Electronics.' IEEE SB Narasaraopeta Engineering College, AP, Nov 2021.
- Resource Person — 'ABC of Modelling and Simulation in Microelectronics and Research.' FDP, IEEE Circuits & Systems Society, Dec 2021.
- Resource Person — 'Harnessing Power of Technology for Effective Teaching and Learning.' EIE Dept., SCSVMV Deemed University, Kanchipuram, Mar 2024.
- Session Chair — ICACDS (2018, 2021, 2022, 2023) — Springer indexed; IEEE INCOS 2024; ICabCD 2018, South Africa.

AWARDS & RECOGNITIONS

#	Award / Recognition	Year
1	Best Paper Award — ICTIEE 2026, GITAM University, Bengaluru. Track: Innovative Use of AI for Higher Education, Jan 7–10, 2026.	2026
2	Research Competency Award — Publication in Renewable & Sustainable Energy Reviews (IF 16.9). KARE University Award.	2025
3	Research Competency Award — Consultancy Project Completion. KARE University Award.	2025
4	Research Competency Award — Engineering Education Journal Publication. KARE University Award.	2025

5	IUCEE Individual Honorary Member — Indo Universal Collaboration for Engineering Education (IUCEE).	2025
6	Completed Advanced PhD Course — High Resolution Electronic Measurements in Nano-Bio Science, Politecnico di Milano, Italy.	Jul 2025
7	Dr. Sarvepalli Radhakrishnan Best Teacher Award in VLSI Design. Ref: cspace.in/awards (21C-169).	2021
8	Best Researcher Award (Male, Under 40 Years, Overseas Category) — IARE Awards 2020.	2020
9	Engineering Educator Certification (IIEECP) — IUCEE International Engineering Educator Certification Programme.	2019
10	Professional Member (Elected) — IEEE-HKN (Eta Kappa Nu) inducted at Mu Eta Chapter, UKZN, South Africa. September 13, 2019.	2019
11	NSQF Certification: Foundational & Advanced Training on Semiconductor Manufacturing — ESSCI, Govt. of India. Score: 74%.	2026

PROFESSIONAL MEMBERSHIPS

- Senior Member IEEE (SMIEEE) — Membership No. 95068437
- Fellow, IETE (Institution of Electronics & Telecommunication Engineers)
- Professional Member (Elected), IEEE-HKN (Eta Kappa Nu) — Mu Eta Chapter, UKZN
- Member, Institution of Engineers (India) (IEI) — No. M-1694604
- IUCEE Individual Honorary Member (2025)
- Life Member, ISTE (LM131077)
- Member, India Electronics & Semiconductor Association (IESA)
- Member, International Association of Engineers (IAENG), USA
- Member, IACSIT (International Assoc. of Computer Science & IT), Singapore — ID: 80348848
- Associate Member, IRED (Inst. of Research Engineers and Doctors) — AM10100054270

TECHNICAL SKILLS & SOFTWARE EXPERTISE

Simulation / EDA	SEMulator3D (Lam Research) • Synopsys TCAD Sentaurus • Silvaco Atlas-TCAD • COMSOL Multiphysics • MATLAB • LTSpice • Ngspice • CST • HSPICE • Cadence • Xilinx
Programming	C • C++ • VHDL • TCL • FPGA Programming
Design / CAD	Mentor Graphics • IC CAD Design Automation • Edraw • OriginLab • Dia
OS / Office	Linux (Ubuntu) • Windows • MS Office Suite

INTERNATIONAL ACADEMIC EXPOSURE

- Post-Doctoral Fellow — University of KwaZulu-Natal (UKZN), Durban, South Africa (Jun 2018 – Apr 2021). ~3 years. QS World Rank ≤ 500.
- Associate Professor — Durban University of Technology (DUT), Pietermaritzburg Riverside Campus, South Africa (Jan 2021 – Jun 2021).
- Advanced PhD Course — 'High Resolution Electronic Measurements in Nano-Bio Science.' Politecnico di Milano, Italy. July 2025.

- Co-Convener, ICACDS-2024 — organized at Université Paris-Saclay, 10 Rue Sextius Michel, Paris, France (May 2024).
- Research papers presented at international conferences in London (UK), Rome (Italy), Paris (France), Aberdeen (Scotland, UK), and Durban (South Africa).
- Post-Doctoral Co-Supervision of researcher at University of South Florida, USA (Sarasota-Manatee Campus). Ongoing.
- IEEE-HKN Inducted at Mu Eta Chapter, University of KwaZulu-Natal, South Africa — September 13, 2019.

PERSONAL DETAILS

Date of Birth	17 December 1983	Nationality	Indian
Passport No.	T9680801	Languages	Hindi (Native), English (Proficient)
PAN / Voter ID	AIOPD6897Q	Marital Status	Married; Spouse: Dr. Abha Dargar (Asst. Prof. ECE, KARE)
Correspondence	Staff Qtrs-C5, KARE, Anand Nagar, Krishnankoil, Virudhunagar Dt., Tamil Nadu – 626126	Permanent	5-A-15, New Housing Board, Shastri Nagar, Bhilwara, Rajasthan – 311001

ACADEMIC REFEREES

Dr. Jitendra Kaushal Srivastava <i>Ph.D. Supervisor</i> Associate Professor, Dept. of Electronics, Dr. Ram Manohar Lohia Avadh University (Govt.), Faizabad, UP, India jitendra.srivastava8@gmail.com +91-8852906125	Prof. (Dr.) Thomas Jo Afullo <i>Post-Doctoral Supervisor</i> Professor, Dept. of Electronic Engineering, Howard College Campus, University of KwaZulu-Natal (UKZN), Durban, South Africa afullot@ukzn.ac.za +27-31-260-2732	Prof. (Dr.) Pradip C. Deka <i>Ex-Vice-Chancellor</i> Sir Padampat Singhanian University, Udaipur – 313601, India deka.pradip47@gmail.com +91-9799396289
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Place: Tamil Nadu, India Date: March 2026

Dr. Shashi Kant Dargar
SMIEEE | Fellow IETE | IEEE-HKN
Associate Professor (Senior Grade) & Deputy Director, IQAC
KARE, Tamil Nadu — NIRF Rank 28 (2025)