

## KISHORE C

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### Education

	Degree	Year	Institute	Specialization
1	Ph.D.	Pursuing	IIT Hyderabad	VLSI Design
2	M.Tech.	2011	Sri Siddhartha University, Tumkur	VLSI Design & Embedded Systems
3	B. E	2009	Siddaganga Institute of Technology, Tumkur	Instrumentation Technology
4	PUC	2005	Vidya PU College, Tumkur	Science
5	SSLC	2003	Siddaganga High School, Tumkur.	General

### Professional Experience

	Date (from-to)	Designation	Organization
1	21-08-2012 to till date	Assistant Professor	Department of Electronics and Instrumentation Engineering, Siddaganga Institute of Technology, Tumakuru-572103, Karnataka, India

### Positions held

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### Affiliations of Professional Organizations

- NIL

### Awards and Honors

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### Courses Taught

#### Undergraduate Courses

- VLSI Design
- Microcontrollers and Microprocessors

- Advanced Microprocessors
- Industrial Control and Automation
- Industrial Safety and Data Communication
- DSP Architectures
- Computational Methods

#### Postgraduate Courses

- ASIC Design
- Low Power VLSI Design
- Advanced Microcontrollers

#### Research Guidance

Sl. no	Name of the Scholar	Title	Year of completion
1.	NIL	NIL	NIL

#### Research Areas

- Spintronics
- Nanomagnetic Devices
- Embedded Systems
- VLSI
- Automation (PLC, DCS and SCADA)
- Robotics
- VLSI
- Internet of Things

#### Sponsored Projects

Ongoing Projects: NIL

Completed Projects: NIL

#### Publications

##### **Journals**

1. Santhosh S, Kishore C, Amit Acharyya, Vihar Georgiev, Rishad Shafik, and Themis Prodromakis. "Design Methodologies for Skyrmion-Based Circuits and Systems in AI-Driven Applications: Bi-Directional Integration.", 2025, IEEE Circuits and Systems Magazine, DOI: 10.1109/MCAS.2025.3587613.
2. Sushma T, Kishore C, and Mamatha H S, "Smart Asset tracking ", International Journal of Emerging Technologies and Innovative Research, ISSN:2349-5162, Vol 8, Issue 8, page no.96-100, August 2021, Link: JETIREZ06022.
3. Kishore C, "Virtual Traffic Signal using Internet of Things and Android Application to assist the Drivers", Journal of Instrumentation Society of India (ISOI), Vol. 48, 2018.

4. Kishore C and Praveen P, "Traffic Signals Following Robot using Canny Edge Method", Journal of Instrumentation Society of India (ISOI), Vol. 47, No.1, p 0 - 33., 2017.
5. Purushottama T L and Kishore C, "Diagnosis of Diabetic Retinopathy through Screening of Retinal Images", International Journal of Research GRANTHAALAYAH, Vol. 5 (Issue 4: RACEEE), ISSN- 2350-0530(O), ISSN-2394-3629(P), pp 92-104. 2017.  
DOI.org/10.29121/granthaalayah.v5.i4RACEEE.2017.3330
6. Purushottama T L and Kishore C, "Screening of Diabetic Retinopathy Images in Lab View", Asian Journal of Engineering and Technology Innovation (AJETI), ISSN:2347-7385, pp 228 -233. 2017. Online Available: [Click Here](#)

### **Conference Proceedings**

1. Kishore C, Santhosh S, S Sara, Arabinda Haldar, Chandrasekhar Murapaka, Rishad Shafik, and Amit Acharyya. "Energy-Efficient Reconfigurable Skyrmion-Based Counter for Nanoscale Applications." 2025 IEEE International Symposium on Circuits and Systems (ISCAS), London, UK, May 25-28. IEEE, 2025. pp. 1-5, DOI: 10.1109/ISCAS56072.2025.11043732.
2. Kishore C, Santhosh S, Rishad Shafik, and Amit Acharyya. "Nano-Magnetic Logic-based Architecture Design Methodology for the Tsetlin Machine for Energy Efficient Applications.", 21st IEEE Interregional NEWCAS Conference, Edinburgh, Scotland, June 26-28. IEEE, 2023. pp. 1-5, DOI: 10.1109/NEWCAS57931.2023.10198204.
3. Mohan. J and Kishore C, "Smart vehicle monitoring for detecting anomalies on CAN bus," 2021 IEEE International Conference on Electronics, Computing and Communication Technologies (CONECCT), Bangalore, India, 2021, pp.1-6, DOI: 10.1109/CONECCT52877.2021.9622628.
4. M. Kavya, Kishore C and K. S. Rajath Kumar, "Verification and validation of data on Wi-Fi Over The Air(OTA)," 2018 3rd IEEE International Conference on Recent Trends in Electronics, Information and Communication Technology (RTEICT), Bangalore, India, 2018, pp. 429-433, DOI: 10.1109/RTEICT42901.2018.9012431.
5. Arpana Kori, Shweta N M, and Kishore C, "Hall effect Sensor for Energy Measurement", McGraw-Hill International Conference on "Signal, Image Processing, Communication and Automation" (ICSIPCA) on 6th and 7th July 2017, pp. 167-171, JSS Academy of Technical Education, Bengaluru, Karnataka, India. Paper ID: 02.MH-ICSIPCA.2017.1.26.
6. C. M. Vikram, K. S. Basavaraju and Kishore C, "DWT-Based SVM Multi-Classifer Approach for HR Signal Classification," 2014 Fourth International Conference on Advances in Computing and Communications, Cochin, India, 2014, pp. 69-72, DOI: 10.1109/ICACC.2014.22.

7. Kishore C, “Virtual Traffic Signal using Internet of Things and Android Application to assist the Drivers”, National Symposium on Instrumentation (NSI-41) on 13-14 July 2018, Sri Jayachamarajendra College of Engineering, Mysuru, Karnataka, India.
8. Purushottama T L and Kishore C, “Screening of Diabetic Retinopathy Images in Lab View”, National Conference on “Advances in Computing and Information Technology (ACIT)” on 6th May 2017, REVA University Bengaluru, Karnataka, India.
9. Purushottama T L and Kishore C, “Diagnosis of Diabetic Retinopathy through Screening of Retinal Images”, National Conference on “Recent Advances in Communication, Electronics and Electrical Engineering” (RACEE-2017) on 25th March 2017, JAIN University Bengaluru, Karnataka, India.
10. K S Basavaraju, Kishore C and Ravi H K, “Driver assistance system using image processing for traffic signs”, National Symposium on Instrumentation (NSI-40) on 30-31 Oct 2015, Kumaraguru College of Technology, Coimbatore, Tamil Nadu, India.
11. Kishore C and Praveen P, “Traffic Signals following Robot using Canny Edge Method”, National Symposium on Instrumentation (NSI-40) on 30-31 Oct 2015, Kumaraguru College of Technology, Coimbatore, Tamil Nadu, India.

#### Book Chapters

- NIL

#### Books

- NIL

#### Editorial

- NIL

#### Reviewer of Journals

- *NIL*

Editor/ Reviewer of Journal
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- *NIL*

Patents
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1. Kishore C, Santhosh S, and Amit Acharyya, “A Nano-Magnetic logic-based system for Tsetlin Machine”, File No: IN 202341039699, Granted, Patent No: 552183, Granted date: 10-10-2024.
2. Kishore C, Anagha N, Santhosh S, and Amit Acharyya, “A System with Nanomagnetic Logic-based Spiking Neural Network Inference Architecture”, File No: IN 202441038984, Granted, Patent No: 556405, Granted date: 17-12-2024.
3. Kishore C, Santhosh S and Amit Acharyya, “A Convolution Tsetlin Machine Architecture Based System”, File No: IN 202441053917, Granted, Patent No: 560345, Granted date: 14-02-2025.

4. Kishore C, S Sara, Santhosh S, Chandrashekhar M, Arabinda H, and Amit Acharyya, "A Skyrmion Based Counter.", Filed, IN 202441071776 Filing Date: 23-09-2024.
5. Kishore C, S Sara, Santhosh S, Chandrashekhar M, Arabinda H, and Amit Acharyya, "Method and System to operate Tsetlin Machine using Skyrmions.", File No: IN 202441071705, Granted, Patent No: 566501, Granted date: 21-05-2025.
6. Kishore C, Santhosh S, Chandrashekhar M, Arabinda H, and Amit Acharyya, "A Skyrmion-Based Tsetlin Machine Inference System.", Filed, IN 202441086334 Filing Date: 09-11-2024.
7. Kishore C, Santhosh S, and Amit Acharyya, "A System and Methodology for Enhanced Security Using Skyrmion-CMOS Hybrid Logic Locking", Filed, IN 202541010919 Filing Date: 10-02-2025.
8. Santhosh S, Kishore C, Chandrashekhar M, Arabinda Haldar, and Amit Acharyya, "System and Method for Skyrmionic Logical Adder for Electrical Circuit.", Filed No: IN 202441031123, Granted, Patent No: 569524, Granted date: 01-08-2025.
9. S Sara, Kishore C, Santhosh S, Amit Acharyya, Chandrashekhar M, and Arabinda Haldar, "Three-input majority logic gate and cascade logic gates for skyrmion-based computing systems.", Filed, IN nil Filing Date: nil.

Invited Lectures, talks, and workshops
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**✓ Invited Lectures:**

- NIL

**✓ Technical Talk:**

- NIL

**✓ Workshops:**

1. Five-day Faculty Development Program on "VLSI Design using Cadence Tools" conducted by K.S. Institute of Technology, Bangalore, from 29th June to 3rd July, 2015, in collaboration with Entuple Technologies Pvt. Ltd.
2. A three-day workshop on "ARM Technology" was conducted at SIT, Tumakuru, from 17th to 19th July 2015.
3. Three-day Faculty Development Program "Engineering Faculty Workshop" conducted by WIPRO (MISSION10X) at SIT, Tumakuru, 25th November to 27th November 2015.
4. Five-day Faculty Development Program on "Analog Integrated Circuit Design using CADENCE Analog Design Flow" Organised by

Entuple Technologies Pvt. Ltd., Bangalore, India, from 7th-11th December 2015.

5. A two-week ISTE Workshop on “Control Systems” was conducted by the Indian Institute of Technology, Kharagpur, from 2<sup>nd</sup> to 12th December 2014. This workshop was held under the National Mission on Education through ICT (MHRD).
6. A two-day workshop on “Introduction to Robotics” was conducted by IIT Bombay from 6th to 7th February 2015, held at the International Institute of Information Technology, Bangalore.
7. A four-day workshop on “Fieldbus Technology in Industrial Process Automation” held from 25th to 28th May 2015, organised by the Department of Electronics and Instrumentation Engineering, SIT, Tumakuru, and supported by the ISA-Bangalore section.
8. One-week workshop on “A New Approach for Teaching Analog Electronics Integrating Simulation and Control Systems” conducted at SIT, Tumakuru, during 20th – 25th August 2013.
9. A two-day workshop on “Machine Learning for Computer Vision” held from 8th to 9th November 2013 at Siddaganga Institute of Technology, Tumkur.
10. Two-day workshop on “Recent Trends in Communication Engineering” held from 23rd to 25th January 2014 at Siddaganga Institute of Technology, Tumkur.