

## Dr. K. V. Jyothi Prakash

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### Education

|   | Degree   | Year | Institute                                       | Specialization                                   |
|---|----------|------|---|--|
| 1 | Ph.D.,   | 2024 | Visvesvaraya Technological University, Belagavi | Microelectronics (Semiconductor Device Modeling) |
| 2 | M.Tech., | 2006 | Visvesvaraya Technological University, Belagavi | VLSI Design and Embedded Systems                 |
| 3 | B.E.,    | 2000 | Siddaganga Institute of Technology, Tumakuru    | Electronics & Communication Engg.                |

### Professional Experience

|   | Date (from-to)                 | Designation               | Organization                                      |
|---|--------------------------------|---------------------------|---|
| 1 | November 2013 to till date     | Assistant Professor       | Siddaganga Institute of Technology, Tumakuru      |
| 2 | January 2013 to November 2013  | Associate Professor & HOD | Channabasaveshwara Institute of Technology, Gubbi |
| 3 | August 2010 to December 2012   | Assistant Professor & HOD | Channabasaveshwara Institute of Technology, Gubbi |
| 4 | December 2008 to December 2010 | Assistant Professor       | Channabasaveshwara Institute of Technology, Gubbi |
| 5 | December 2007 to December 2008 | Assistant Professor       | JSS Academy of Technical Education, Bengaluru     |
| 6 | June 2006 to December 2007     | Senior Lecturer           | JSS Academy of Technical Education, Bengaluru     |
| 7 | March 2005 to May 2006         | Senior Lecturer           | Channabasaveshwara Institute of Technology, Gubbi |

|   |                                 |          |   |
|---|---------------------------------|----------|---|
| 8 | September 2001 to February 2005 | Lecturer | Channabasaveshwara Institute of Technology, Gubbi |
| 9 | August 2000 to September 2001   | Lecturer | HMS Institute of Technology, Tumkur               |

*(Please fill in reverse order. Current designation should be at the top)*

#### Positions held

*(Please give details of any administrative posts, co Ordinator roles/ responsibilities held)*

1. Head of the Department (CIT, Gubbi)
2. Dean Internals (CIT, Gubbi)

#### Affiliations of Professional organizations

- The Indian Society for Technical Education (ISTE)
- The Institution of Engineers (IE)

#### Awards and Honors

- Certificate of appreciation presented by Karnataka State Innovation Council & Department of Industries and Commerce, Government of Karnataka for having filed an application "Health Monitoring System" (Patent filing No. 770/CHE/2011) before the Indian Patent Office.
- Certificate of appreciation presented by Karnataka State Innovation Council & Department of Industries and Commerce, Government of Karnataka for having filed an application "Automated Soil Testing Device" (Patent filing No. 1889/CHE/2012) before the Indian Patent Office.
- Secured Best Paper Award in the National Conference on Recent Trends in Electronics & Communication (NCRTEC-2007) held at SJB Institute of Technology, Bangalore.
- Secured Best Paper Award in the National conference on VLSI Design, Signal Processing and Communication (NC-VSPCOM-2007) held at Siddaganga Institute of Technology, Tumkur.
- Secured I prize in the hobby project exhibition held during Technichè-97 in P E S Institute of Technology, Bangalore.
- Secured III prize in the hobby project exhibition held during Electro-Tec-97 in Sri Siddartha Institute of Technology, Tumkur.
- Secured Best Overall Performance prize in the hobby project exhibition held during Technisium-97 in Siddaganga Institute of Technology, Tumkur.

- Secured I prize in the hobby project exhibition held during Electro-Tec-96 in Sri Siddartha Institute of Technology, Tumkur.

### Courses Taught

#### Undergraduate Courses

- Foundations of Electronics Engineering
- Introduction to Electronics
- Basic Electronics
- Analog Electronic Circuits
- Integrated Circuits and Applications
- VLSI Design
- Power Electronics
- Low Power VLSI Design
- VLSI Testing and Verification
- Basic Electronics
- CMOS VLSI Design
- Solid State Devices and Technology
- Information Theory and Coding

#### Postgraduate Courses

- CMOS VLSI Design
- Advances in VLSI
- VLSI System and Architecture
- Low Power VLSI Design

### Research Guidance

| Sl. no | Name of the Scholar | Title | Year of completion |
|--------|---------------------|-------|--------------------|
|        |                     | Nil   |                    |
|        |                     |       |                    |
|        |                     |       |                    |
|        |                     |       |                    |

### Research Areas

- Microelectronics
- Semiconductor Device Modeling
- Low Power VLSI Design

### Sponsored Projects

#### Ongoing Projects: Nil

1. Title:  
Funding Agency:  
Amount:  
Duration:  
Role:
2. Title:  
Funding Agency:  
Amount:  
Duration:  
Role:

#### Completed Projects: Nil

1. Title:  
Funding Agency:  
Amount:  
Duration:  
Role:
2. Title:  
Funding Agency:  
Amount:  
Duration:  
Role:

|              |
|--------------|
| Publications |
|--------------|

#### Journals

- K. V. Jyothi Prakash, "Smart Energy Meter", Journal of Embedded Systems & Its Applications, Volume 4 Issue 1, Page 32-39, 2019, DOI: 10.5281/zenodo.3241780
- K. V. Jyothi Prakash, Adish P. V., Tejas B. S., Vasantha M. D., An Autonomous Cleaning Robot, Journal of Advances in Microcontrollers and Digital Signal Processing Volume 1 Issue 1, Page 1-12, 2018
- K. V. Jyothi Prakash, "An Efficient Energy Distribution Method", Journal of Electrical Power System Engineering & Technology Volume 2 Issue 2, Page 1-13, 2017

#### Conference Proceedings

- K. V. J. Prakash, H. A M, R. Umesh, M. Reddy P and P. N, "Vision Based Currency Counting for An Automated Donation Box," *2025 3rd International*

*Conference on Smart Systems for applications in Electrical Sciences (ICSSES)*, Tumakuru, India, 2025, pp. 1-6, doi: 10.1109/ICSSES64899.2025.11009988.

- H. S. Patil, K. V. Ikshu, S. S. Patil, S. M. Janawad, U. Purushotham and K. V. J. Prakash, "Translation of Different Dialects of Kannada to English Using Machine Learning," *2024 International Conference on Smart Systems for applications in Electrical Sciences (ICSSES)*, Tumakuru, India, 2024, pp. 1-6, doi: 10.1109/ICSSES62373.2024.10561318.
- H. Kishore, S. S. Nilugal, S. Nawaz, S. Yogaraja Adithya and K. V. J. Prakash, "Designing a Multifunctional Army Robot Utilizing Camouflage Technique," *2024 International Conference on Smart Systems for applications in Electrical Sciences (ICSSES)*, Tumakuru, India, 2024, pp. 1-5, doi: 10.1109/ICSSES62373.2024.10561265.
- K. V. Jyothi Prakash and G. S. Jayadeva, "Gate C-V Characteristics of n-Channel MOSFET Considering Quantum Mechanical Effects," *2023 International Conference on Smart Systems for applications in Electrical Sciences (ICSSES)*, Tumakuru, India, 2023, pp. 1-4, doi: 10.1109/ICSSES58299.2023.10200091.
- K. V. Jyothi Prakash, K. M. T. Tejaswi Kumar, K. Punyadeep, K. R. Theja and G. Krushna, "Automated Library System Using Robotic Arm," *2019 International Conference on Communication and Electronics Systems (ICCES)*, Coimbatore, India, 2019, pp. 1390-1394, doi: 10.1109/ICCES45898.2019.9002550.
- K. V. Jyothi Prakash, N. S. Chethana, F. Tamkeen, C. S. Kala and N. R. Kavya, "Designing of Microcontroller based Energy Meter (Smart Energy Meter) for Energy Preserving," *2019 International Conference on Communication and Electronics Systems (ICCES)*, Coimbatore, India, 2019, pp. 1252-1255, doi: 10.1109/ICCES45898.2019.9002590.
- K. V. Jyothi Prakash, Manisha Rajni, Md. Huseni, Pramod S. Aladale, Santhosh K. N., "Intelligent home navigation system for aged, physically challenged and elderly people", International Conference on Current Research in Engineering Science and Technology (ICCREST-2016), 4th May 2016 at Trichy, Tamilnadu.
- K. V. Jyothi Prakash, Bhagyashree A. Hegde, Manusmitha Sanil, Nayana N, Amruta, "Two stage operational transconductance amplifier with miller capacitor compensation", Proc. National conference on Emerging Trends in Engineering Sciences and Management – 2016 (NCESM-2016), Tumkur, India 23rd - 24th March 2016.
- Suresh D. S., K. V. Jyothi Prakash, Rajendra C. J., "Automated Soil Testing Device" 1st International Conference on Emerging Trends in Engineering & Technology (ICETET), April 14th 2013 at Delhi.

- K. V. Jyothi Prakash, Dharshith C. N., Raghukumar G., Srinivas Rao H. V., Vanitha, “ A Wireless Approach Towards Heart Attack Detection for People Staying in Rural Places ” Proc. International Conference on System, Dynamics and Control (ICSDC-2010), Manipal, pp. 426-428, August 2010
- P. Bharath, N. Ananth, S. Vijetha and K. V. Jyothi Prakash, "Wireless automated digital energy meter," *2008 IEEE International Conference on Sustainable Energy Technologies*, Singapore, 2008, pp. 564-567, doi: 10.1109/ICSET.2008.4747071.
- K. V. Jyothi Prakash, “Molecular Electronics: A Novel Nanoelectronic Solution Review”, Proc. National Conference on Emerging trends in Engineering and Technology (NC-ETET-08), Gubbi, India, pp. 27-30, November 2008.
- K. V. Jyothi Prakash, “Microcontroller Based Auto Parking garage”, Proc. 2nd National Conference on Recent Trends in Electronics & Communication (NCRTEC-2008), Bangalore, India, pp. 50-53, March 2008.
- K. V. Jyothi Prakash, “Embedded System Based Auto Parking garage”, Proc. IEEE Conference on AI Tools in Engineering, Pune, India, pp. 23-24, March 2008.
- K. V. Jyothi Prakash, “Microcontroller Based Power Control Device”, Proc. National Conference on Recent Trends in Electronics & Communication (NCRTEC-2007), Bangalore, India, pp. 127-133, May 2007. (Awarded as best paper of the conference)
- K. V. Jyothi Prakash and Omprakash N. Sringeri, “Efficient Energy Distribution Method”, Proc. National Conference on Advanced Energy Conversion Technologies (AECT 2007), Manipal, India, pp. 1-3, March 2007.
- K. V. Jyothi Prakash and Omprakash N. Sringeri, “Embedded System Based Efficient Power Distribution Control”, Proc. National conference on VLSI Design, Signal Processing and Communication (NC-VSPCOM-2007), Tumkur, India, pp.50-54, February 2007. (Awarded as best paper of the conference)
- K. V. Jyothi Prakash, “Wireless Power Control Device”, Proc. National Conference on Devices, Intelligent Systems and Communications (MITDISC-2005), Manipal, India, pp. 1-3, September 2005.

#### Book Chapters

- Nil

#### Books

- K. V. Jyothi Prakash, Analog Electronic Circuits, Interline Publication, 2019
- K. V. Jyothi Prakash, Basic Electronics, Interline Publication, 2018
- K. V. Jyothi Prakash, Integrated Circuits and Applications, Interline Publication, 2017

- K. V. Jyothi Prakash and S. T. Veerabhadrappe, Analog Electronics Lab Manual, Subhash Stores Publications, 2007

#### Editorial

- Nil

#### Reviewer of Journals

- Nil

*(Please give details in IEEE format)*

#### Editor/ Reviewer of Journal

- Nil

#### Patents

- Wireless Automated Digital Energy Meter, CBR NO. 6846, Application No. 2775/CHE/2008
- Health Monitoring System, CBR No. 2394, Application No. 770/CHE/2011
- Automated Soil Testing Device, CBR No. 5316, Application No. 1889/CHE 2012
- Method, System and Apparatus for public transport ticketing system” CBR No. 14600, Application No. 3893/CHE/2014

#### Invited Lectures, talks and workshops

- Delivered lecture on “Hands on session on Soldering and Interfacing to Microcontrollers” on 20th and 21st January 2018 in Develop Project Workshop organized by IEEE Students chapter, Siddaganga Institute of Technology, Tumkur.
- Delivered lecture on “Embedded System Design” on 23rd and 24th January 2016 in Develop Project Workshop organized by IEEE Students chapter, Siddaganga Institute of Technology, Tumkur.

- Delivered lecture on “Soldering skills and Interfacing to Microcontrollers” on 14th and 15th March 2015 in Develop Project Workshop organized by IEEE Students chapter, Siddaganga Institute of Technology, Tumkur.
- Delivered a lecture on “Motivation for Students to carryout Hobby Projects” at Siddaganga Institute of Technology, Tumkur on 20th March 2012.
- Delivered Lecture on “Hands on Experience on PSPICE” at Channabasaveshwara Institute of Technology on 13th January 2012.
- Delivered a lecture on “Ideas for Carrying out Projects” at Akshaya Institute of Technology, Tumkur on 24th October 2011.
- Delivered a lecture on “Innovative Ideas to Carryout Mini Projects” at Siddaganga Institute of Technology, Tumkur on 16th September 2011.
- Delivered Lecture on “Introduction to Embedded Systems” at Channabasaveshwara Institute of Technology on 29th July 2011.