



# Dr. C S SURESH BABU

ENGINEERING TEACHER  
&  
ACADEMICIAN

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## PROFILE

I am a passionate teacher with 30+ years of teaching experience and a dedicated researcher with 15+ years of research experience. I was instrumental in updating the curriculum in an autonomous engineering college.

Team work is quintessential for any success and I am good in creating conducive environment for students. I look forward to serve an education institute by imparting quality education and involve in institution building.

## EXPERIENCE : 30+ Years

- ASSOCIATE PROFESSOR : 2006 – 2023
- ASSISTANT PROFESSOR/SI. Gr. LECTURER: 2003-2006
- SENIOR LECTURER: 1998 -2003
- LECTURER: 1993 -1998  
@ Dept. of Electronics and Instrumentation Engg.  
Malnad College of Engineering, Hassan

## EDUCATION

- Ph.D (Micro Systems) – February 2020  
@ MSRIT, Bengaluru, VTU, Belagavi
- M.Tech (Instrumentation) – January 1998  
CGPA: **7.47** @ IIT, Kharagpur
- B E (Instrumentation Technology) – 1990  
Percentage: **60.3**  
@ Malnad College of Engg. Hassan, UOM,

## AREA OF SPECILIZATION

- **Micro systems (MEMS):** Research work comprises of design and fabrication of Micro sensor
- **Design of Controls Systems and Signal Conditioning Circuits for Automation:**  
Projects guided during my career employs the concept of Automation and its basics to resolve the issues in domestic/Industrial applications

## ACHIEVEMENTS

- **PUBLICATIONS - 23**
  - International/National Journals - 4 (Citations -2)
  - International/ National Conferences - 19 (Citations -27)
- **AWARDS / HONORS - 13**

All the way through my career, real time applications based research work, carried out by employing the concept of Control and Automation has fetched the awards and honors consistently.

  - Best Project Award @ National level Project Competitions - 4
  - Best Paper Award @ National level Conferences - 2
  - Best Project guide Award @ Institution level competitions - 4
  - Session Chair Person in International conference held at IIT Roorkee in 2014-15
  - Selected for Special Training program held at Bosch Rexroth AG Drive & Control Academy, Germany in 2011 and Train the trainer program held at VTU Regional Centre, Mysore in 2010

## ■ ACHIEVEMENTS . . .

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### ■ ADDITIONAL RESPONSIBILITIES

#### University level

- BOE member for VTU, Belgavi during the academic year 2007-08 and 2020-21
- BOE member for Kuvempu university during the academic year 2003 - 04

#### ■ Institution level

- **Member Secretary of Academic Council**
- **Chairman of Syllabus committee** of newly introduced subject – **Biology for Engineers**  
An **innovative and interesting Concept**, employed to frame the syllabus is **very well received** and **appreciated by VC and Principles** of various colleges at VTU, Belagaavi.
- **Member of Syllabus committee** of newly introduced branch - **Computer Science (AI & ML)**  
Introduced Sensors and Controls based essential subjects to realize an interdisciplinary branch
- Coordinator of MCE-Bosch Rexroth Regional centre of competency in Automation Technologies
- Coordinator of **DST-FIST** Research Lab – Centralized facility
- Member of Teaching, Learning and Research Centre
- **Mentor - MERIISE**  
(Malnad Enclave for Research, Innovation, Incubation, Start-up and Entrepreneurship)

#### ■ Department level

- **BOE Chairman** from 2020 - 2023

#### ■ WORKSHOPS / TRAINING PROGRAMS ORGANISED – 15

As a Coordinator and trainer of MCE-Bosch Rexroth Automation Centre, one week / two week training programs have been organized for students/faculties consistently from 2012 - 2023

#### ■ FACULTY DEVELOPMENT PROGRAMMS / WORKSHOPS / TRAINING PROGRAMS ATTENDED – 50+

#### ■ Establishment of Micro Systems Simulation Lab:

Taken an initiation to set up a micro systems simulation lab, comprises of a MEMS software tool **Intellisuite[V-8.1]** which is purchased from VTU, Belagavi in an academic year 2010-11.

And up-graded the same during academic year 2015 - 2016 with the financial assistance of TEQIP-II phase by replacing the MEMS tool of version 8.1 by version 8.8.

*Objective:* To meet the requirement of research activities in MEMS which is an exciting area of scientific development that promises breakthroughs in all kinds of fields and also to give an exposure of this emerging field to UG students.

#### ■ Configuration of new/existing CORE Laboratories to meet requirement of Autonomous syllabus.

- Process Controls Instrumentation Lab (Signal Conditioning Circuits Lab)
- Control Systems Lab
- Linear Integrated Circuits Lab
- Process Instrumentation Lab

#### ■ MONOGRAPH - 04

1. **Learning/ Educational Material** for Subjects – **MSST, CS and ACS**
2. **A Lab Manual** for under graduate course - **Data Acquisition and Control systems**
3. **A Lab Manual** for under graduate course – **Process Control and Instrumentation Lab**

## AWARDS

Sl. No.	Acad. Year	Details	Event/Organizers	Value
1	2018 - 19	<b>PROJECT</b> titled MEMS Accelerometer based Electronic Security System for riders engaged in cell phones	<b>Department level Project Competition</b> Dept. of EIE (IT), MCE, Hassan	<b>Best Project GUIDE Award</b>
2	2017 - 18	<b>PROJECT</b> titled MEMS Accelerometer based Hand gesture Recognition	<b>Department level Project Competition</b> Dept. of EIE(IT), MCE, Hassan	<b>Best Project GUIDE Award</b>
3	2015 - 16	<b>PROJECT</b> titled A Braille Script learning aid for visually challenged	<b>Department level Project Competition</b> Dept. of IT, MCE, Hassan	<b>Best Project GUIDE Award</b>
4	2014 - 15	<b>PROJECT</b> entitled Design of high switching speed interface circuit for Non-contact Fringe Capacitive type liquid level sensor with enhanced resolution	<b>Department level Project Competition</b> Dept. of IT, MCE, Hassan	<b>Best Project GUIDE Award</b>
5	2011 - 12	<b>RESEARCH BASED PAPER</b> titled Design of Fringe Capacitance based Low cost Dual mode Sensor for Pick and place Robot Hand - A Novel approach	<b>NATIONAL Conference on ZEN and TAO</b> Dept. of EEE, MSRIT, Bangalore	<b>Best PAPER Award</b>
6	2009 - 10	<b>PROJECT</b> titled Agri Robot - Automated Smart Sowing Machine for Port trays	<b>TECH TOP - 2010, A NATIONAL level Innovation Contest for Engineering students</b> Technopark, Trivandrum	<b>4<sup>TH</sup> PLACE</b>
7	2008 - 09	<b>PROJECT</b> based paper Talky fare meter for visually challenged people	6 <sup>th</sup> <b>NATIONAL</b> Conference on <b>Control Instrumentation System (CISCON-2009)</b> Dept. of ICE, MIT, Manipal	<b>Best PAPER Award</b>
8	2004 - 05	<b>PROJECT</b> titled Self-calibrated technique in liquid level control using non contact capacitive sensors	<b>NATIONAL LEVEL Project Presentation and Competition,</b> APS College of Engg, Bengaluru	<b>3<sup>rd</sup> Place</b>
9	2003 - 04	<b>PROJECT</b> titled Online Mileage Indicator	<b>NATIONAL LEVEL Project Presentation and Competition,</b> APS College of Engg, Bengaluru	<b>4<sup>th</sup> Place</b>
10	2002 - 03	<b>PROJECT</b> titled Detection of label and text of the packs meant for domestic products	<b>NATIONAL LEVEL Project Presentation and Competition,</b> APS College of Engg, Bengaluru	<b>1<sup>st</sup> Place</b>

## KSCST SPONSORED

Sl. No.	Acad. Year	Details	Value
1	2006 - 07	PROJECT titled On line Tire pressure monitoring system	APPRECIATED by KSCST Committee
2	2005 - 06	PROJECT titled Automated Tobacco curing plant	SELECTED for KSCST Exhibition
3	2004 - 05	PROJECT titled Electronic Security for Automobiles	SELECTED for KSCST Exhibition
4	2003 - 04	PROJECT titled Detection of foreign particles in reusable bottle	SELECTED for KSCST Exhibition

## HONORS

Acad. Year	Event	Organizer	Value
2014-15 (05 <sup>th</sup> - 07 <sup>th</sup> December)	23rd International Conference on Processing and fabrication of Advanced materials	IIT Roorkee	Session Chair person
2011 – 12 (8 <sup>th</sup> to 12 <sup>th</sup> August)	Special Training program at Bosch Rexroth AG Drive & Control Academy Wurzburg, Germany	Bosch Rexroth India Limited – Drive and Control Technology, Bangalore	Representing Electrical science domain, MCE, Hassan
2010 – 11 (6 <sup>th</sup> Dec 2010 - 6 <sup>th</sup> Jan 2011)	Training program on Train the Trainer for Industrial Automation Technology at VTU Regional Centre, Mysore	Bosch Rexroth India Limited – Drive and Control Technology, Bangalore	Representing Electrical science domain, MCE, Hassan

## TECHNICAL TALK DELIVERED

Acad. Year	Event	Topic	Organizer
2016-17 (27 <sup>th</sup> - 29 <sup>th</sup> September)	TEQIP sponsored Three-day workshop on MEMS and its applications	Micro Systems And Case studies	Department of Telecommunication Engineering, Sri Siddhartha Institute of Technology (SSIT), Tumkur.
2006 – 07 (8 <sup>th</sup> to 20 <sup>th</sup> March)	AICTE - ISTP sponsored STTP on “PLCs and SCADA”	Role of Control Systems in Industrial Applications	Smt. L.V. Polytechnic, Hassan.

## ■ PUBLICATIONS

### ■ Referred Journals

1. Sunitha P, Uma B, Channakeshava, Suresh Babu, **A Fully Labelled Image Dataset of Banana Leaves Deficient in Nutrients**, Vol. 48, Data in Brief, Elsevier, April 2023.  
<https://doi.org/10.1016/j.dib.2023.109155>
2. C. S. Suresh Babu, Premila Manohar, **Studies on effect of corrosion for the selection of material of self-compensated capacitive type liquid level sensor**, Applied Mechanics and Materials (AMM), Volume 895, February 2019, pp. 230-236. **Citations:1**  
DOI: <https://doi.org/10.4028/www.scientific.net/AMM.895> (RG Journal Impact – 0.37)  
ISSN(P) :1662 – 9336, ISSN(W):1662 – 7482, ISBN:978-3-0357-1476-0
3. C. S. Suresh Babu, Premila Manohar, **Self-calibrated non-contact capacitive type level sensor for liquid at different temperatures**, International Journal of Mechanical Engineering and Technology (IJMET), Volume 10, Issue 01, January 2019, pp. 296–305.  
DOI: <http://www.iaeme.com/ijmet/issues.asp?JType=IJMET&VType=10&IType=1>  
(Scopus Indexed) (2019 : 10.6879), ISSN(P) :0976 – 6340, ISSN(W):0976 - 6359
4. B. B. Neelakantappa, C. S. Suresh Babu, Uma B, A. M. Vinod, **Recent Trends and Challenges in Campus placements of Engineering Institutions**”, Journal of Engineering Education Transformations (JEET), Special Issue, January 2018. **Citations:1**  
DOI:10.16920/jeet/2018/v0i0/120956, (Scopus Indexed) , ISSN(P) :2349 – 2473, ISSN(W):2394 – 1707

### ■ International Conferences

1. C. S. Suresh Babu, Y. M. Shashidhar, Sunitha P, Sree Rajendra, **Automation of an Intelligent Security System for new generation Automobiles**, Proceedings of International Conference on Trends in Mechanical Engineering Sciences (ICTMES-2020), August 6-7, 2020
2. C. S. Suresh babu, Premila Manohar., **Studies on effect of corrosion for the selection of material of self-compensated capacitive type liquid level sensor**, Proceedings of International Conference on Green Trends in Mechanical Engineering Sciences (GTMES - 2018), pp 20, August 2018. **Citations:1**
3. C. S. Suresh Babu, B. B. Neelakantappa, Sunitha P, Geetha Kiran A, **Good Practices for better education in a Technical Institution**, International Conference on Transformation in Engineering Education (ICTIEE), University of Noida, India, January 4 -6, 2018.
4. C. S. Suresh babu , Premila Manohar, **Design of a switching unit for fringe capacitance based smart sensor for multi threshold liquid level monitoring**, International Conference on Smart Sensors and Systems (IC-SSS), pp 1 - 6, December 21-23 2015. **Citations:1**  
DOI: [10.1109/SMARTSENS.2015.7873610](https://doi.org/10.1109/SMARTSENS.2015.7873610)  
E - ISBN: 978-1-4673-9328-7, CD: 978-1-4673-9327-0, P - ISBN: 978-1-4673-9329-4
5. C. S. Suresh Babu, Premila Manohar, **Design of Self Compensated Non-Contact Type Capacitive Sensor for Liquid Level Control with enhanced sensitivity - A Novel Approach**, Proceedings of 23<sup>rd</sup> International conference on Processing and fabrication of Advanced Materials (PFAM-2014), Indian Institute of Technology Roorkee, pp 580-588, December 5-7, 2014. **Citations:2**  
E - ISBN: 978-93-84588-16-8, P - ISBN: 978-93-84588-17-5
6. C. S. Suresh babu, Premila Manohar., **Design of a low cost signal conditioning circuit for self-compensated non contact capacitive type multi threshold liquid level sensor**, IEEE

International Conference on Circuits, Communication, Control and Computing (I4C), pp 58 - 63, November 21-22, 2014

**Citations:9**

DOI:[10.1109/CIMCA.2014.7057757](https://doi.org/10.1109/CIMCA.2014.7057757) Corpus ID: 17498774)

E-ISBN: 978-1-4799-6546-5, CD: 978-1-4799-6545-8

7. C. S. Suresh Babu, Chaitra V.T and et.al, 2009, **Design of High Resolution Interface circuit and Self Compensative non contact capacitive sensors for liquid level control**, Proceedings of IEEE International conference on Sensors, Security, Software and Intelligent systems (ISSIS 2009), organized by Coimbatore Institute of Technology, and Oklahoma State University, USA, January 8 - 10, 2009.
8. C. S. Suresh Babu and Somesh D.H, 2006, **Design of Self Compensated non Contact Capacitive Sensors and Proficient Signal Conditioning Circuit for Self-Compensated Non-Contact Multi Threshold Liquid Level Control – A Novel Approach**, IEEE International conference on Industrial Technology (ICIT 2006), organized by IEEE Industrial Electronics Society, IIT Bombay, pp. 1931 -1936, December 15 - 17, 2006. **Citations:7**  
DOI: [10.1109/ICIT.2006.372546](https://doi.org/10.1109/ICIT.2006.372546), P - ISBN: 1-4244-0725-7, CD: 1-4244-0726-5
9. C. S. Suresh Babu and Y. M. Shashidhar, 2006, **An Intelligent On line Mileage indicator for New generation Automobiles**, IEEE International Conference on Industrial Technology (ICIT 2006), organized by IEEE Industrial Electronics Society, IIT Bombay, pp. 2250 - 2255, December 15 - 17 2006. **Citations:6**  
DOI: [10.1109/ICIT.2006.372544](https://doi.org/10.1109/ICIT.2006.372544), P - ISBN: 1-4244-0725-7, CD: 1-4244-0726-5

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## ■ National Conferences

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1. C. S. Suresh babu, Premila Manohar, **Design of fringe capacitance based low cost dual mode sensor for pick and place robot – A Novel approach**, Proceedings of National conference on Zen and Tao of Electrical and Electronics Engineering, MSRIT, pp. 102-107, January 2014  
**Note:** This paper has secured the **“Best paper Award”**. **Citations:2**
2. C. S. Suresh Babu, Babitha.K.P and et.al, 2009, **Talky Fare Meter for Visually Challenged People**, Proceedings of Sixth National conference on Control Instrumentation System (CISCON-2009) organized by Dept. of ICE, MIT, Manipal, November 06 - 07, 2009.  
**Note:** This paper has secured the **“Best paper Award”**.
3. C. S. Suresh Babu, Rakshith and et.al,2009, **Programmable Logic Controller based Automated Soft Drink Plant**, Proceedings of Sixth National conference on Control Instrumentation System (CISCON-2009) organized by Dept. of ICE, MIT, Manipal, November 06-07, 2009.
5. C. S. Suresh Babu and Y.M.Shashidhar, **A Low Cost RFID based Security Systems for Automotive Cars**, Proceedings of National conference on Recent developments in Mechanical Engineering, (RDME – 09), organized by Dept. of Mechatronics, Sree Chitra Thirunal College of Engineering and College of Engineering, Trivandrum, March 05-06, 2009.
6. C. S. Suresh Babu, Chaitra V.T, and et.al, **Design of Interface Circuit for Capacitive Sensors of Low sensitivity**, Proceedings of Fifth National conference on Control Instrumentation System (CISCON-2008), organized by Dept. of ICE, MIT, Manipal, Nov.07-08, 2008.
7. C. S. Suresh Babu, Gowthami. S. and et.al, **RFID based Electronic Key for cars**, Proceedings of Fifth National conference on Control Instrumentation System (CISCON-2008), organized by Dept. of ICE, MIT, Manipal, November 07-08, 2008.

8. C. S. Suresh Babu, Bhavan Thimmaiah and et.al, **An Electronic system for new generation Automobiles**, Proceedings of 12<sup>th</sup> Annual conference of Vijnana parishad of India and National Symposium on Applications of Special functions” (ACVPI-2007) organized by Dept. of Mathematics and statistics, Jodhpur, Rajasthan, December 25 - 27, 2007.
9. C. S. Suresh Babu, Somesh D.H. and et.al, **Proficient Signal Conditioning Circuit for Self-Compensated Non-Contact Capacitive Sensors – A Novel Approach**, Proceedings of National conference on “Recent Advances in Process Control and Instrumentation Engineering” (RAPCIE-2006) organized by Dept. of USIC, Kurukshetra, February 23 - 25, 2006.
10. C. S. Suresh Babu, Aravind. S. and et.al, **A Smart System for Online Mileage Indication in Automobiles**, Proceedings of National conference on Recent Advances in Process Control and Instrumentation Engineering (RAPCIE-2006) organized by Dept. of USIC, Kurukshetra, February 23 - 25, 2006.
11. C. S. Suresh Babu, Somesh D.H. and et.al, **Self compensated non contact capacitive sensors in multi threshold level control for liquids**, Proceedings of a Second National conference on Control Instrumentation System, (CISCON-2005), organized by Dept. of ICE, MIT, Manipal, November 11 - 12, 2005.

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### ■ Training Programs organized

[as Coordinator for MCE-Bosch Rexroth Regional centre of competency in Automation Technologies]

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- Training Progrs conducted am on **Application of pneumatics and Hydraulics in industrial automation** held during 27<sup>th</sup> to 30<sup>th</sup> November 2015
- Training program on **Role of Pneumatic and Hydraulics in manufacturing industries** [for PG students from Industrial Automation and Robotics course] during 27<sup>th</sup> to 30<sup>th</sup> Nov 2014
- Training program on **Pneumatic and Hydraulics in manufacturing industries** [for the students from Diploma, ITI and GTTC of Mechanical sciences Background] during 03 – 05 November, 2014 for about three days,
- Training program on **PLC & its applications in industrial automation** held from 30<sup>th</sup> April to 2<sup>nd</sup> May 2014
- Training program **Hydraulics and pneumatics in industrial automation** 27<sup>th</sup>-29<sup>th</sup> Jan 2014
- Training program on **Role of PLCs in industrial automation** held during 30<sup>th</sup> May to 3<sup>rd</sup> June 2012
- Training program on **Role of PLCs in industrial automation** held during 26<sup>th</sup> - 29<sup>th</sup> April 2012
- Focus on **Hydraulics and Pneumatics based Control system components for Industrial Automation** held during 09<sup>th</sup> Feb 2012 to 11<sup>th</sup> Feb 2012

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### ■ Coordinator of training programs/ workshops:

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- One-week TEQIP sponsored workshop on **PLCs, Hydraulics and Pneumatics in industrial automation and its applications in industrial Automation** held on 27<sup>th</sup> April to 1<sup>st</sup> May, 2018
- Two days TEQIP sponsored training program on **PLCs and its applications in industrial Automation** held on March 23 - 24, 2017
- For State level symposium on “**Emerging Trends in control and Instrumentation**” held on September 1 - 2, 2006.