

## FACULTY PROFILE

**Name** : **Dr. Chayalakshmi C. L.**



**Designation** : **Associate Professor**  
**Department** : **Electronics and Instrumentation Engineering**  
**Employee ID** : **1-465655569**  
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**Orcid ID** : **0000-0003-0489-100X**  
**Scopus ID** : **55375318800**  
**Vidwan Id** : **125014**  
**Researcher ID (Web of Science)** : **AAG-1351-2021**  
**Google Scholar ID** : **g0iM2ekAAAAJ**

**Qualification** : **Ph. D.**

**Professional Experience**  
Teaching experience : **23 years**

**Administrative Responsibilities** :

1. Head of the Department from August 2015-Dec. 2017
2. Assistant Placement Officer from 2020-21
3. Coordinator for question paper scrutiny from 2019-2020
4. Coordinator for Online courses from 2019-2020
5. Coordinator for Bosch- Rexroth Centre of Excellence from 2011-12 to 2014-15
6. First Gymkhana Cultural coordinator for the academic years 2009-11
7. Coordinator for department association for the academic year 2008-09.
8. Coordinator for valuation work for the academic years 2008-09, 2010-11
9. Chairman of Board of Studies for academic year 2015-17
10. Member of squad committee of the college for academic year 2013-14 to 2017-2020.
11. Member of SOP committee of the college from the academic year 2019-2020

12. Coordinator for proof reading and printing for the academic year 2017-18
13. Faculty Advisor for ISOI-BEC Student Chapter from the academic year 2019-2020
14. Joint Coordinator for NAAC BEC working group
15. Coordinator and Co-Principal Investigator for VGST Project Proposal for setting up centre for innovative Science, Engineering and Education in 2020-21
16. Coordinator for an online FDP on Six Sigma from 6<sup>th</sup> to 10<sup>th</sup> July 2020
17. Coordinator for MISSION10X AARMBH program in our college
18. Member of Equivalence Committee of the college from 2020-21
19. Member of BEC Rules and Regulations Drafting Committee for the academic year 2021-22
20. Member of editorial board in "Asian Journal of Convergence in Technology" from the academic year 2020-21.

**Teaching** :  
**No. of Projects Guided**  
 UG : 25

**Research**  
 Interest Area :  
 1. Embedded Systems  
 2. Embedded Programming  
 3. Virtual Instrumentation  
 4. Hardware  
 5. Industrial Automation

**Patents** : A provisional specification patent (Application No.: TEMP/E-1/19965/2018-CHE) applied with the title **“Temperature controlled feed unit for life span enhancement of filter membranes in water and similar liquid purifiers”**

**Research Grants** : Coordinator and Co-Principal Investigator for VGST Project Proposal for setting up centre for innovative Science, Engineering and Education in 2020-21

**Publications** : **Book Chapters:**  
 Books/Chapters

1. Chayalakshmi C. L., D. S. Jangamshetti, Savita Sonoli, “Real Time Remote Monitoring and Measurement of Loss due to Dry Flue Gas”, *3<sup>rd</sup> International Conference on Advances in Power Electronics and Instrumentation Engineering*, August 2012, Vol.150, pp. 490-495, ISSN:1876-1100, ISBN: 978-1-4614-3362-0, Springer-Verlag Berlin Heidelberg.
2. “Microcontroller Based System for Preserving Vegetables”, Chayalakshmi C. L., Bhat K., EAI/Springer Innovations in Communication and Computing, 2021, pp. 393–399, [https://doi.org/10.1007/978-3-030-49795-8\\_38](https://doi.org/10.1007/978-3-030-49795-8_38)
3. “Microcontroller Based Semi-Automated Pineapple Harvesting System”, Bhat K., Chayalakshmi C. L., EAI/Springer Innovations in Communication and Computing, pp. 383–392, 2021, [https://doi.org/10.1007/978-3-030-49795-8\\_37](https://doi.org/10.1007/978-3-030-49795-8_37)

**Journals (with citations)** :  
 1. Chayalakshmi C. L., Krishnamurthy Bhat, B. G. Sheeparmatti, “Tilt angle measurement using accelerometer IC and

- communicating the data between ARM processors using CAN protocol,” *National symposium on Instrumentation (NSI-31)*, Gwalior, India, pp.173, October 2006.
2. Chayalakshmi C. L., Krishnamurthy Bhat, B. G. Sheeparamatti, “Tilt Angle Measurement using Accelerometer IC and Communicating the Data between ARM Processors using CAN Protocol”, *Journal of The Instrument Society of India*, Volume 38, No. 2, pp. 156-164, 15<sup>th</sup> June 2008.
  3. Krishnamurthy Bhat, Chayalakshmi C. L., “Design and Development of versatile saline flow rate measurement system and GSM based remote monitoring device,” *International Journal of Pharmaceutical Applications*, ISSN: 0976-2639, Vol.3, Issue 1, pp. 277-281, 2012.
  4. Chayalakshmi C. L., D.S. Jangamshetti, Savita Sonoli, “ARM7 based Automatic Soot Blower Control System,” *International Journal on Instrumentation and Control System*, Vol. 4, No. 3, ISSN: 2249-1147 [online], DOI: 10.5121/ijics.2014.4302, pp. 11-19, July 2014.
  5. Chayalakshmi C. L., D. S. Jangamshetti, Savita Sonoli, “Monitoring Boiler Efficiency using DASY Lab and a Case Study on Analysis of Boiler Losses,” *International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering*, impact factor:3.885, DOI:10.17148/IJIREEICE.2015.3616, Vol. 3, Issue 6, pp. 68-74, June 2015, ISSN: 2321-2004.
  6. Chayalakshmi C. L., D. S. Jangamshetti, Savita Sonoli, “Time Series Analysis and Forecasting of Boiler Efficiency,” *International Journal of Electronics, Communication & Instrumentation Engineering Research and Development (IJECIERD)*, ISSN(P): 2249-684X; ISSN(E): 2249-7951, Vol. 6, Issue 1, pp. 1-8, Feb 2016, won **BEST PAPER AWARD**.
  7. Chayalakshmi C. L., D. S. Jangamshetti, Savita Sonoli, “Parameter Optimization for Forecasting of Boiler Losses and Efficiency using Statistical Model,” *Journal of Control and Instrumentation Engineering*, Vol. 2, Issue 1, pp.1-19, 2016.
  8. Chayalakshmi C. L., "Smart Phone for Personal Health Care Monitoring System," *International Journal of Instrumentation and Control Systems*, Vol. 6, No. 4, pp. 1-7, October 2016.
  9. Chayalakshmi C. L., Basavakumar Jigalur, Prasanna Kori, Pramada Karav, Rohini Patil, "Automated Chilli Seed Extractor Useful for Indian Farmer," *International Journal of Instrumentation and Control System (IJICS)*, Vol. 7, No. 4, pp. 7-13, October 2017.
  10. Chayalakshmi C. L., D. S. Jangamshetti, Savita Sonoli, “Multiple Linear Regression Analysis for Prediction of Boiler losses and Boiler Efficiency,” *International Journal of Instrumentation and Control System*, Vol. 8, No. 2, pp.1-9, April 2018.

## Conferences

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1. Chayalakshmi C. L., Krishnamurthy Bhat, B. G. Sheeparamatti, “Acceleration and Tilt angle measurement using ARM Processor and CAN protocol implementation for data transmission”, *3<sup>rd</sup> National Conference on Control Instrumentation System*, Manipal, pp. 85-88, 2006.
2. Chayalakshmi C. L., Krishnamurthy Bhat, B. G. Sheeparamatti, “Tilt angle measurement using accelerometer IC and communicating the data between ARM processors using CAN protocol,” *National symposium on Instrumentation (NSI-31)*,

- Gwalior, India, pp.173, October 2006.
3. Krishnamurthy Bhat, Chayalakshmi C. L., "Tilt angle Measurement using acceleration IC and CAN protocol implementation for data transmission," *7<sup>th</sup> WSEAS International conference on Applied Informatics and Communication*, pp. 300-304, August 2007, ISSN: 1790-5117, ISBN: 978-960-8457-96-6,.
  4. Chayalakshmi C. L., D. S. Jangamshetti, Savita Sonoli, "Real Time Remote Monitoring and Measurement of Loss due to Dry Flue Gas", *3<sup>rd</sup> International Conference on Advances in Power Electronics and Instrumentation Engineering*, Vol.150, pp. 490-495, August 2012, ISSN:1876-1100, ISBN: 978-1-4614-3362-0, Springer-Verlag Berlin Heidelberg.
  5. Chayalakshmi C. L., D. S. Jangamshetti, Savita Sonoli, "Design and development of an ARM platform based Embedded System for measurement of Boiler Efficiency", *IEEE International Symposium on Industrial Electronics and Applications*, September 2013, ISBN: 978-1-4799-1124-0/13.
  6. Chayalakshmi C. L., Shankar C., Vinay D., Mallappa, Parth K., "ARM Processor based soil color sensing and identification system", *International conference on Electrical, Electronics, Computer Science, Management and Mechanical Engineering ICE2CSM2E-2014* on 4<sup>th</sup> May at Pune, India and won **EXCELLENT PAPER AWARD**.
  7. Chayalakshmi C. L., Bhagyashree Biradar, Pooja Keshetti, "Personal Health Care Monitoring System using Smart Phone," *JIRAS International Conference on Innovative Research and Solutions (ICIRS 2015)*, April 2015.
  8. Chayalakshmi C. L., D. S. Jangamshetti, Savita Sonoli, "Boiler Efficiency Estimation from Hydrogen Content in Fuel," *IEEE 2015 International Conference on Advances in Computing, Communications, and Informatics (ICACCI)*, 978-1-4799-8792-4/15, pp. 1107-1110, Aug 2015.
  9. Raikar Saishree D., Rohini S. Patil, Beerappa Tirlapur, Pranav K., Chayalakshmi C. L., "Detection of Nutritional Disorders in Pepper and Pomegranate Plants using MATLAB and LabVIEW," *International Conference on Emerging Trends in Engineering and Technology*, pp. 59-63, 10<sup>th</sup> January 2016, ISBN: 9788192958056,
  10. Krishnamurthy Bhat, Chayalakshmi C. L., "Microcontroller based Preserving system for Vegetable" *International Conference on Mobile Computing and Sustainable Informatics (ICMCSI-2020)*, 23-24 January 2020, Nepal
  11. Chayalakshmi C. L., Krishnamurthy Bhat, "Microcontroller based Semi Automated Pineapple Harvesting System" *International Conference on Mobile Computing and Sustainable Informatics (ICMCSI-2020)*, 23-24 January 2020, Nepal.
  12. Chayalakshmi C. L., Suparna Kapoor, " Synergic Case Study: Impact of Learning in Industry Training Center" in XV Latin American Conference on Learning Technologies", 19<sup>th</sup> -23<sup>rd</sup> October 2020, Loja, Ecuador.
  13. Krishnamurthy Bhat, Chayalakshmi C. L., "Advanced Glove for Deaf and Dumb with Speech and Text Message on Android Cell Phone" in 2020 IEEE International Conference for Innovation in Technology, 6<sup>th</sup> to 8<sup>th</sup> November 2020, Bangalore.
  14. Anusha Muttinamath, Meghna Pawar, Soundarya Kulkarni, Darukprasad Sheelimath, Chayalakshmi C. L., "Design and Development of an IoT based Sound Pollution Monitoring System for Traffic Control" in National Symposium on Instrumentation (NSI-42) organized by ISOI, Kumaraguru

College of Technology and DRDO Dehradun, 28<sup>th</sup> to 29<sup>th</sup> December 2020.

15. Manjunath G., Sushmita Bhinge, Vinuta Balakkanavar, Soundarya Ilegar, Chayalakshmi C. L., M. G. Kambalimath, "Bit Frostbite" in National Symposium on Instrumentation (NSI-42) organized by ISOI, Kumaraguru College of Technology and DRDO Dehradun, 28<sup>th</sup> to 29<sup>th</sup> December 2020.

## **Invited Talks**

:

1. Faculty Development Programme on "Effective Teaching Practices", 29<sup>th</sup> to 31<sup>st</sup> January 2010, BEC, Bagalkot.
2. Student Development Program on "Microcontroller" from 4<sup>th</sup> to 5<sup>th</sup> March 2011, BEC, Bagalkot
3. Two days student development Program on "Microcontroller" From 24<sup>th</sup> to 25<sup>th</sup> March 2011, BEC Bagalkot
4. Faculty Development Programme on "Effective Teaching Practices", 3<sup>rd</sup> to 5<sup>th</sup> March 2012, BEC, Bagalkot.
5. STTP on "Recent Advances in Embedded Systems and VLSI", jointly organized by ISTE-SRM and S. R. Vastrad rural Polytechnic, Guledgud, 24<sup>th</sup> to 29<sup>th</sup> June 2013.
6. Guest lecture on "Introduction to Embedded System", organized by department of Electronics, BVVS Science college, Bagalkot on 02-03-2016.
7. Conducted 09 (nine) sessions on LabVIEW in ISTE TEQIP sponsored Short Term Training Programme between 7<sup>th</sup> to 11<sup>th</sup> November 2016, organized by department of Electronics and Telecommunication Engineering, Don Bosco College of Engineering, Margao, Goa.
8. One of the Conveners for ISTE TEQIP sponsored Short Term Training Programme between 7<sup>th</sup> to 11<sup>th</sup> November 2016, organized by department of Electronics and Telecommunication Engineering, Don Bosco College of Engineering, Margao, Goa.
9. Coordinator and Resource person for a workshop on AICTE Exam Reform Policy from 14<sup>th</sup>-15<sup>th</sup> February 2020 for BEC Faculty members.
10. Coordinator and Resource person for an online workshop on AICTE Exam Reform Policy from 29<sup>th</sup> -30<sup>th</sup> April 2020 and 6<sup>th</sup> – 7<sup>th</sup> May 2020, for BEC Faculty members
11. Online Guest Lecture on "Machine Learning for Mechatronics", organized by The Oxford College of Engineering, Bangalore, on 18<sup>th</sup> June 2020
12. Online training programme on " NAAC Accreditation Process- An Overview" under Paramarsh scheme, Presented to: Tontadarya College of Engineering, Gadag, on 16<sup>th</sup> July 2020
13. National level refreshment programme on "AICTE Examination Reform Policy" organized by NPIU New Delhi, from 7<sup>th</sup> to 8<sup>th</sup> December 2020.
14. Coordinator and Resource person for an online workshop on AICTE Exam Reform Policy from 18<sup>th</sup> -19<sup>th</sup> February 2021, for SOE CUSAT Faculty members.

## **Events Organized**

: *Workshop/FDP/SDP:*

1. A student workshop on Advanced Microcontroller, from 15<sup>th</sup> to 17<sup>th</sup> February 2007
2. A student workshop on "ARM CORTEX M3", from 4<sup>th</sup> to 5<sup>th</sup> March 2014.
3. A student workshop on "LabVIEW: Concepts, Programming and Interfacing", 11<sup>th</sup> to 12<sup>th</sup> March 2014.
4. A student workshop on "Graphical Solution using NI LabVIEW",

19<sup>th</sup> to 21<sup>st</sup> Sept. 2016

5. National level “NPTEL Workshop”, 29<sup>th</sup> November 2020
6. An online National level Faculty Development Program on “Six Sigma”, from 6<sup>th</sup> to 10<sup>th</sup> July 2020.

*Guest Lecture:*

1. A Guest Lecture on “Industrial Automation, by Mr. Anoop Rotti, Axis Controls, Mumbai, on 13<sup>th</sup> September 2016.
2. A Guest Lecture on “LabVIEW: Basics and Applications Areas”, by Mr. Sunil Kumar, VI Solutions, Bangalore, on 27<sup>th</sup> August 2016.
3. A Guest Lecture on “Data Acquisition using DASYS Lab Software Suite” by Mr. Nagabhushan Bhat, M/S. Technocomm Instruments Pvt. Ltd, Bangalore, on 21<sup>st</sup> October 2016.
4. A Guest Lecture on “Disruptive Technologies” at BEC, Bagalkot, on 7<sup>th</sup> March 2020 by Mr. Satish Ranade and Dr. Ajay Deshmukh, Pune
5. Online webinar on “Applications of IoT and Emerging Business Models” by Mr. Raghavendra Rao Krishnamurthy, Chief Operating Officer, and Head of IoT Domain Solutions, Bosch.IO X, Stuttgart Area, Germany, on 4<sup>th</sup> July 2020.
6. Online webinar on “Recent Trends in Data Science and Analytics” by Dr. Udit Bhatia, IIT Gandhinagar on 5<sup>th</sup> December 2020.

**Conferences/ Symposiums/ Workshops/ Training Programs Attended** : *More than 30*

**Awards and Honors** : **Best Paper award**

1. Chayalakshmi C. L., Shankar C., Vinay D., Mallappa, Parth K., “ARM Processor based soil color sensing and identification system”, *International conference on Electrical, Electronics, Computer Science, Management and Mechanical Engineering ICE2CSM2E-2014* on 4<sup>th</sup> May at Pune, India and won excellent paper award.
2. Chayalakshmi C. L., D. S. Jangamshetti, Savita Sonoli, “Time Series Analysis and Forecasting of Boiler Efficiency,” *International Journal of Electronics, Communication & Instrumentation Engineering Research and Development (IJECIERD)*, ISSN(P): 2249-684X; ISSN(E): 2249-7951, Vol. 6, Issue 1, pp. 1-8, Feb 2016, won BEST PAPER AWARD

Selected as an **NPTEL online course Translator** for

1. Fundamentals of Electrical Engineering
2. Introduction to Electromagnetism

