

## FACULTY PROFILE

**Name** : **Krishnamurthy Bhat**



**Designation** : **Professor and Head**  
**Department** : **Electronics and Instrumentation Engineering**  
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**Scopus ID** : **56583599300**

**Vidwan Id** : **125184**

**Researcher ID (Web of Science)** : **AAF-3153-2021**

**Google Scholar ID** : **r5cAPMYAAAAJ**

**Qualification** : **PhD**

**Professional Experience**

Teaching experience : **29**

Industry experience

**Administrative Responsibilities**

1. Total of 29 years teaching experience (as on January 2021) and 11 years as Head of E&IE Department (2007-2015 and AUG2018 - till date)
2. BEC- Academic council member
3. BEC- Joint Board-Joint Secretary (From Aug. 2018)
4. Member of purchase committee of BVVS Polytechnic, Bagalkot
5. Member of BoS in E&IE of BVVS Polytechnic, Bagalkot from 2017
6. Member of equipment purchase committee of Horticulture University, Bagalkot
7. Member of BOE of EI/BM/ML Board of VTU, Belagavi during 2016-18
8. Worked as Chief Editor for “EXOERGIC” BEC -College magazine since 2012 (EXOERGIC-12, EXOERGIC-13, EXOERGIC-14, EXOERGIC-15, EXOERGIC-16) up to 2016.
9. Involved in various activities like entrepreneurship development, consultancy, department development, industry-institute interaction
10. BoS member of Dept. of E& IE, PDA College of Engg., Kalburgi, Karnataka from 2017 to 2019

11. Mentor for KBITS- New Age Incubation Network of GoK at the College level from 2016-17 onwards
12. Member of BEC Rules and Regulation Committee from the academic year 2011-12 up today
13. Member of BEC Examination Reform Committee from May 2020

## Teaching

- : Total teaching experience of 29 Years
- : **25**
- : **02**
- :
  - Electronic–hardware design and development
  - Entrepreneurial activities
  - Sensor design and development
  - Real and virtual electronic measurement
  - Embedded systems
  - Electro-mechanical system design

## Patents

- :
  1. An invention entitled “An electro-mechanical system for prevention of wastage of cold water stored in hot water pipeline” (Patent Application No.: 2453/CHE/2015 ) is granted  
**Patent No: 347122 Date of Grant: 18 September 2020**  
**Period of Grant: Up to 15 May 2035**
  2. Provisional specification “Temperature controlled feed unit for life span enhancement of filter membranes in water and similar liquid purifiers” (Application No.: TEMP/E-1/19965/2018-CHE) applied

## Research Grants

- : Following technical projects funded by KBITS, GoK (each project for Rs.3 Lakh Max.), under New Age Incubation Network (NAIN) scheme:
  1. Automated artificially ripened fruits detector
  2. Automated Urine analyzer for vital parameter display suitable for public toilet
  3. Power generating road humps and smart street light
  4. Banana fruit ripening controller
  5. Techno-cradle

## Publications

### Books/Chapters

- :
  1. Chayalakshmi C. L., Krishnamurthy Bhat, “Microcontroller Based Semi Automated Pineapple Harvesting System,” International Conference on Mobile Computing and Sustainable Informatics (ICMCSI 2020), Pulchowk Campus, Institute of Engineering, Tribhuvan University, Nepal, 23-24 January 2020.
  2. Krishnamurthy Bhat, Chayalakshmi C. L., “Microcontroller Based Preserving Vegetables,” International Conference on Mobile Computing and Sustainable Informatics (ICMCSI 2020), Pulchowk Campus, Institute of Engineering, Tribhuvan University, Nepal, 23-24 January 2020.

## Journals (with citations)

- :
  1. 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, June 2008, pp. 156-164.
  2. C.C. Gavimath, Krishnamurthy Bhat, C.L. Chayalakshmi, R. S. Hooli, Ravishankera, “Design and Development of Versatile Saline Flow Rate Measuring System and GSM based Remote Monitoring Device”, International Journal of Pharmaceutical Applications, ISSN 0976-2639, Volume 3, Issue 1, 2012, pp. 277- 281.
  3. Krishnamurthy Bhat, Subhash N. Uppin, Veeresh S. Muttagi, Prashant

P. Devaravar, Venkatesh.T.Pujari, "A novel method of smart phone protection using parachute and air-bag techniques by built in freefall detection", IRD - International Journal of Recent Advances in Engineering & Technology (IJRAET), ISSN (Online): 2347 - 2812, Volume 2, Issue 1, pp. 26-29, January, 2014.

4. Rohini N. Hongal, Roopa G. Sunagad, Shruti A. Gombi, Rohankumar Patil, Krishnamurthy Bhat, "A technical method of extraction of gold from e-waste: a multi-sensor based method using microcontroller", International Journal of Research in Engineering and Technology (IJRET), ISSN (O) : 2319-1163, ISSN (P) : 2321-7308, Volume 3 Special Issue 7, May-2014, pp. 94-97.

5. Krishnamurthy Bhat, R. N. Herkal, "An Electro-mechanical system for prevention of wastage of cold water stored in hot water pipeline", Official Journal of Patent Office, India, Issue 22/2015, 29-05-2015, pp. 36360 (Patent Application No. 2453/CHE/2015).

6. Sangeeta Jadhav, Krishnamurthy Bhat, A.V. Sutagundar, "PLC based remote guided vehicle for filling and disposal of toxic chemical for unmanned applications", MAT Journal of Electronic Design Engineering Volume 1 Issue 1-2, 2015, pp. 1-6.

7. Ankur S. Mahajan, Rajashekhar Y. Pattar, Krishnamurthy Bhat, "Innovative technique of production of alternate fuel for liquid petroleum gas (LPG) using solar energy", Journal of Innovative Research and Solutions (JIRAS), ISSN(P): 2320 1932, ISSN(O): 2348 3636, Volume 2, Issue 1, pp. 142-146, January – June 2016.

8. Mangala. S. Hiremath, Krishnamurthy Bhat, H. M. Ravikumar, "PLC controlled suction adhesive lead screw mechanism based autonomous wall climbing robot for surface cleaning", International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering, IJAREEIE, Volume 5, Issue 4, pp. 2645–2649, April 2016, DOI:10.15662/IJAREEIE.2016.0504085.

9. Krishnamurthy Bhat, Bharati Meti, K. Chandrasekhar, "Automation technique for online transesterification process of biodiesel plant in India", International Journal of Bio-technology and Research (IJBTR), ISSN (O): 2249-796X; ISSN (P): 2249-6858, Volume 6, Issue 1, February 2016, pp. 13-18. Awarded as Best Paper by Trans Stellar Press (TJPRC).

10. Krishnamurthy Bhat, Bharati Meti, K. Chandrasekhar, "Consolidation of available methods and design of a reliable physicochemical system for transesterification progress monitoring in bio-diesel reaction chamber," International Research Journal of Engineering and Technology (IRJET), e-ISSN: 2395-0056, p-ISSN: 2395-0072, Vol. 3, Issue 6, June 2016, Impact factor: 4.45, pp. 2334-2338.

11. Lakshmi Kadlimatti, Jyothi Hiremath, K. Bhat, "Design and development of automatic urine analyzer suitable for public toilets and transmission of vital composition to user's registered cell phone," International Research Journal of Engineering and Technology (IRJET), e-ISSN: 2395-0056, p-ISSN: 2395-0072, Vol. 3, Issue 7, July 2016, Impact factor: 5.181, pp. 741-744.

12. Santosh Gudi, K. Bhat, "Design and development of pneumatic suction

based wall climbing robot for multiple applications," International Research Journal of Engineering and Technology (IRJET), e-ISSN: 2395-0056, p-ISSN: 2395-0072, Vol. 3, Issue 7, July 2016, Impact factor: 5.181, pp. 745-748.

13. Krishnamurthy Bhat, Soubhagya Hiremath "Overview of prime mineral content of Indian green leafy vegetables and a proposed non-invasive technical method of their estimation," International Journal of Science and Research Development (IJSRD), Vol. 5, Issue 9, November 2017, pp. 829-831, Impact factor: 4.396.

14. Ankur Mahajan, Krishnamurthy Bhat, "Innovative Technique of Production of Electric Power from Kinetic Flow of Water Flow in Pipelines," International Journal of Latest Technology in Engineering, Management & Applied Science (IJLTEMAS) Volume VIII, Issue IX, September 2019 | ISSN 2278-2540, pp. 101-103.

15. Ankur Mahajan, Krishnamurthy Bhat, "A Smart Car: Synergetic Combination of Low Cost Multiple Sensors for Safety and Accident Prevention," International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056 Volume 06, Issue 09, Sep 2019 www.irjet.net p-ISSN: 2395-0072 pp. 2138-2140.

16. Krishnamurthy Bhat, Bharati S. Meti, K. Chandrasekhar, "Planar Inter Digital Capacitive Sensor for Real Time Transesterification Progress Monitoring of Karanja (Pongamia) Oil," Asian Journal for Convergence in Technology, Volume VI, Issue III, pp. 38-47, December 2020, DOI: <https://doi.org/10.33130/AJCT.2020v06i03.008>.

## Conferences

- : 1. Chayalakshmi C. L., Krishnamurthy Bhat, "Acceleration & Tilt angle measurement using accelerometer IC and transmission of data using CAN protocol" 3rd National Conference on Control & Instrumentation System, CISCON-2006, Manipal Institute of Technology, Manipal, Karnataka, India.
2. Chayalakshmi C. L., Krishnamurthy Bhat, "Tilt angle measurement using ARM processor and transmission of data using CAN protocol", 31st National Symposium on Instrumentation, NSI- 31, 2006, ITM, Gwalior, M.P, India.
3. Chayalakshmi C. L., Krishnamurthy Bhat, "Tilt angle measurement using accelerometer IC and CAN protocol implementation for data transmission", 7th World Scientific & Engineering Academy & Society (WSEAS), International Conference on Applied informatics & communication, AIC'07, 2007, Paper no. 564-328, Vouliagmeni Beach, Athens, Greece.
4. Krishnamurthy Bhat, Subhash N., Veeresh Muttagi, "An intelligent method of built in free fall detection and protection system with algorithm for smart phones using parachute and air-bag", IEEE International conference for convergence of technology (I2CT- 2014), Sharadchandra Pawar college of Engineering, Pune, Maharashtra, India, 6 – 8 April 2014.
5. Rohini N. Hongal, Roopa G. Sunagad, Shruti A. Gombi, Rohankumar Patil, Krishnamurthy Bhat, "A technical method of extraction of gold from e-waste: A multi sensor based method using microcontroller",

International conference on Trends in Technology for Convergence (TITCON-2014), 8th -9 th April 2014, AVS Engineering College, Salem, Tamilnadu, India.

6. Krishnamurthy Bhat, Prasad Umargi, Somesh N., Akshata K. ,“GSM and GPS based automatic detection of crime using infrared camera and enhancing ambulance and cop assistance for accidents”, 8th IRF International Conference on Electrical, Electronics, Computer Science, Management and Mechanical, ISBN: 978-93-84209-12-4, Pune, 4 May 2014.

7. V. Hallur, B. Atharga, A. Hosur, B. Binjawadagi, Krishnamurthy Bhat, "Design and development of a portable instrument for the detection of artificial ripening of banana fruit," IEEE International Conference on Circuits, Communication, Control and Computing (I4C), Bangalore, Karnataka, India, 2014, pp. 139-140, doi: 10.1109/CIMCA.2014.7057776.

8. Sangeeta Jadhav, A.V.Sutagundar, Krishnamurthy Bhat, “PLC based remote guided vehicle for filling and disposal of toxic chemical for unmanned applications”, Fourth International Conference on Advances in Computer Science and Application, CSA-2015, OCT 2015, pp. 1-7, Trivandrum, Kerala, India, ISBN: 978-1-5108-6049-0.

9. Pratima Ghattarki, Shilpa Joger, Krishnamurthy Bhat, “Innovative method of delayed ripening of banana fruit: A boon to Indian farmers”, International Conference on Innovative Research and Solution, ICRS -15, 11 April 2015, Paper ID: JJT-IC-030-2015, Bengaluru, Karnataka, India.

10. Saishree Raikar D., Rohini S. Patil, Krishnamurthy Bhat, “A non-invasive method of measurement of Vitamin C and mineral content in Apples using ultraviolet/visible scanning”, International Conference on Innovative Research and Solution, ICRS -15, 11 April 2015, Paper ID: JJT-IC-033-2015, Bengaluru, Karnataka, India.

11. Ankur S. Mahajan, R. Y. Pattar, R. Khamitkar, M. Akalawadi, Krishnamurthy Bhat, "Doctor's innovative clinic: An application of artificial intelligence and physiological sensors," IEEE International Conference on Advances in Human Machine Interaction (HMI), Doddaballapur, Karnataka, India, 2016, pp.1-5, doi:10.1109/HMI.2016.7449162.

12. S. Nagaliker, R. Halki, C. Bengeri, K. Bhat, "Design and Development of CREOGRITA: A Portable Intelligent Ghee Making Machine," International Conference on Computational Techniques, Electronics and Mechanical Systems (CTEMS), Belgaum, India, December 2018, pp. 208-212.

13. Arathi Nashi, Husnara Pinjara, Deepti Challagidad, Savita Girijavagol, Krishnamurthy Bhat, “Plate Wiper: A Novel Plate Washing Machine using Dry Sand and Wiper to Save Water,” International Conference on Innovation in Computer Science, Electrical and Electronics Engineering (ICICEE-2020), CIT, Gubbi, Karnataka, India. 03 July 2020. Won “BEST PAPER AWARD”.

14. Krishnamurthy Bhat, Chayalakshmi C. L., “Advanced Glove for Deaf and Dumb with Speech and Text Messages on Android Phone,” Bangalore Section IEEE International Conference for Innovation in Technology 2020

(INOCON 2020), Bangalore, India, November 2020 and All accepted and presented papers will be submitted to IEEE Xplore for the publication and will be indexed by Ei Compendex and Scopus Indexing.

15. Shweta Malpani, Krishnamurthy Bhat, “GPS and IoT based vehicle on-road behavior monitoring and warning system suitable for transport authority,” National Symposium on Instrumentation (NSI-42) organized by ISOI, Kumaraguru College of Technology and DRDO Dehradun, 28 – 29, December 2020.

## **Invited Talks**

- : 1. A talk on “Sensors & Transducers” at one week short term training program on “Mechatronics” conducted by BVVS Polytechnic, Bagalkot, Karnataka, India, Dt: 26-12-2006.
2. A talk on “Piezo-Sensors” at two days National seminar on “Modern sensors & their applications” conducted by Physics department, Basaveshwar Engg. College, Bagalkot, Karnataka, India Dt: 26-12-2006.
3. A talk on “Entrepreneurship as a career option” at Entrepreneurship Development Cell (EDC), Basaveshwar Engg. College, Bagalkot, Karnataka, India Dt: 08-04-2006.
4. A talk on “Entrepreneurship development” at one week short term training program on “Organizational behavior and management” conducted by BVVS Polytechnic, Bagalkot, Karnataka, India, Dt: 24-02-2006.
5. Invited lecture and conducting laboratory sessions for Electronic Equipment Servicing Course conducted by Science and Technology Entrepreneurship Park (STEP), Basaveshwar Engg. College, Bagalkot, Karnataka, India Dt: 29-02-2004 to 15-04-2004.
6. Technical judge for hardware project exhibition for engineering students Shrushti-2005, a state level event, held at B.V.B. college of engineering and Technology, Hubli, Karnataka, India.
7. Invited talk on “Electronic Sensors” at BVVS Science College, Bagalkot, Karnataka, India on 22-02-2007.
8. Invited talk on “PLCs and Ladder diagram” at BVVS Polytechnic, Bagalkot, Karnataka, India on 28-02-2007.
9. Invited talks at BVVS polytechnic and RDF Bagalkot
10. Session Chairperson of National Symposium on Instrumentation – 38, held at BVB CET, Hubli on 24-26, Oct. 2013
11. Chief Guest 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.
12. Conducted 03 (three) sessions on PLCs, SCADA and VFDs 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.

13. Delivered a lecture on "Entrepreneurship Awareness Camp" at Basaveshwar Science College, Vidyagiri, Bagalkot, on 15-09-2016, organized by Amruta Institute of Engineering and Management Science, Ramnagar, Bangalore.

14. A webinar on "Innovative Idea to Indian Patent: A Clear Road Map" on 27-10-2020 organized by Institute Innovation Council 3.0 (of MHRD), Basaveshwar Engineering College, Bagalkot on 27.10.2020

15. A webinar on "Why and How to Write Technical papers" organized by Instrument Society of India (ISOI)- BEC Students chapter on 02.12.2020

### **Events Organized**

- : 1. SCADA & PLCs for Industrial Automation (TEQIP-I sponsored)
- 2. Intelligent Instrumentation & Robotics (VTU-VGST sponsored)
- 3. Guest Lecturing on "Role of Instrumentation Engineering in Aerospace and Automotive industry" by Mr. Anand Kop, R&D Engineer, Mercedes Benz India Ltd, Bangalore
- 4. Conducted one day highly hands-on workshop on "Electronic Hardware-From Sensors and components level to complete ready PCB including soldering and fully working for day-today application" at BVVS Science College, Bagalkot (BSc. Students) on 24-03-2018.

### **Conferences/ Symposiums/ Workshops/ Training Programs Attended**

- : 1. Attended all the conferences where papers are published (Listed above under "Conferences")
- 2. More than 50 of which at least 60% outside the institute STTPs/Workshops/Seminars

### **Professional Membership**

#### **Society**

- : ● Indian Society for Technical Education (ISTE) – LM26089.
- Instrument Society of India (ISOI) – LM 1376.