

Curriculum Vitae

Dr. Dayakar G. Devaru

Professor

Department of Industrial & Production Engineering

SJCE, JSS Science and Technology University

Mysuru - 570006

Ph: +91 9731302288

E-mail: dayakar.devaru@jssstuniv.in, dayakar.devaru@gmail.com



Objective: To teach and impart my expertise in the field of Industrial / Mechanical Engineering for the development of knowledge and skill of future engineers and to create a niche in the area of energy management.

Professional Summary

- **20+ years** of experience in **teaching** Graduate and Undergraduate Courses.
- **14+ years** of experience in improving **Energy Efficiency**.
- **5+ years** of industrial experience in **Lean Manufacturing** and **Quality Assurance**.

Education

Sl. No.	Degree	Major	University	Year	Grade
1	Ph.D	Industrial Engineering	West Virginia University, USA	2015	4.0/4.0
2	M.S.	Industrial Engineering	West Virginia University, USA	2006	4.0/4.0
3	B.E.	Mechanical Engineering	SJCE, University of Mysore	1998	74.1%
4	P.U.C.	PCMB	Marimallapa's Junior College	1994	81.17%
5	SSLC	Common	Marimallapa's High School	1992	90.17%

Certifications

- **'Certified Energy Manager'** (CEM) from 'Association of Energy Engineers' (AEE), USA.
- **'Certified Quality Engineer'** (CQE) from 'American Society for Quality' (ASQ), USA.
- **'Qualified Specialist'** in PHAST from 'US Department of Energy' (USDOE), USA.
- **'Engineer Intern'** from West Virginia Board of Registration for Professional Engineers, USA.
- **'Programming using C++'** certification from the academic council of NIIT.
- **'Jyothisha Pravesha & Jyothisha Pragna'** from Bharatiya Jyothisha Samsthana.

Positions held

Sl. No.	Designation	Institution / Company	Year
1	Professor	SJCE, JSS ST&U	2019 - Present
2	Associate Professor & Head	NIE Institute of Technology	2016 - 2019
3	Asst. Prof. & Lead Energy Engineer	West Virginia University	2008 - 2015
4	Quality Engineer	Mid-Continent Cabinetry	2006 - 2007
5	Lecturer & Energy Engineer	West Virginia University	2003 - 2006
6	Senior Engineer, Production Engg.	BPL Engineering Limited	1998 - 2002

Merits, Awards and Appreciations

- Recognized by the Government of Karnataka as a meritorious student in 1992 SSLC exam for coming within top 100 positions in the State of Karnataka.
- Received certificate of appreciation for giving Technical Presentation in IAC Lead Student Meeting by U.S. Department of Energy on 11/10/2011.
- Awarded as **'Outstanding Industrial Assessment Center Engineering Student'** by US Department of Energy from 24 Industrial Assessment Centers spread across United States for the year 2014 in recognition of significant contributions made to energy-efficiency.
(<https://www.energy.gov/eere/amo/articles/advanced-manufacturing-office-update-may-2014>)

- Received certificate of appreciation for working as Track Chair in IEEE 'MysoreCON' 2022 International Conference held between 16th to 17th Oct 2022 in JSS Science and Technology University.
- Received certificate of appreciation for working as NAAC Criteria 2 University level coordinator in 2024.
- Received certificate of appreciation for working as Sutter Jatra Exhibition coordinator.

Research

Ph.D in Industrial Engineering (Major – Manufacturing)

West Virginia University

Advisor: Dr. Bhaskaran Gopalakrishnan

Dissertation Title: Estimation of Energy Intensity in Wood Processing Sawmills based on Analysis of Product, Process and System parameters

MS in Industrial Engineering (Major – Manufacturing)

West Virginia University

Advisor: Dr. Bhaskaran Gopalakrishnan

M.S. Thesis Title: Ground Penetrating RADAR (GPR) based System for Non-destructive Detection of Interior Defects in Wooden Logs

Bachelor of Engineering in Mechanical Engineering

SJCE, University of Mysore, India

Project title: NC programming through interactive graphics (A program written in Turbo C reads the AutoCAD drawing of a part and generates instructions for turning that part on a CNC lathe.)

Journal Publications

1. Ground Penetrating Radar (GPR) based system for non-destructive detection of interior defects in wooden logs, *International Journal of Manufacturing Research*: 2008 Vol.3, No.4, pp.425 – 451. (*Inderscience Publications, Scopus Indexed Journal*) DOI: 10.1504/IJMR.2008.020903
D. Devaru, U. Halabe, B. Gopalakrishnan, S. Agrawal
2. Motor-Based Energy Consumption in West Virginia Sawmills. *Forest Products Journal*: 2014, Vol. 64, No. 1-2, pp. 33-40. (*Scopus Indexed Journal*) DOI: 10.13073/FPJ-D-13-00070
Dayakar G. Devaru, Ramakrishna Maddula, Shawn T. Grushecky and Bhaskaran Gopalakrishnan
3. Feasibility Analysis for Implementing GPR Scanning System in Sawmills for Productivity Improvement. *International Journal of Advances in Management Science*: July 2015, Vol. 4 No. 1. pp. 1-15. DOI : 10.12783/ijams.2015.0401.01
D. Devaru, N. Banuri, B. Gopalakrishnan, H. Latif,
4. Evaluation and Indexing of Process Plans Based on Electrical Demand and Energy Consumption *International Journal of Manufacturing, Materials, and Mechanical Engineering (IJMMME) 2017 (Scopus Indexed Journal)* DOI: 10.4018/IJMMME.2017070101
Omar Ahmed Al-Shebeeb, Sivakumar Rangaswamy, Bhaskaran Gopalakrishnan, Dayakar G. Devaru
5. Extraction of Water from Air Using Renewable Energy,
American International Journal of Research in Formal, Applied & Natural Sciences
(International Association of Scientific Innovation and Research, UGC approved journal)
Dr. Dayakar G. Devaru, Mr. Ravishankar M.D, Dr. Rathnakar G, 28(1), September-November 2019, pp. 01-06 (<http://iasir.net/AIJRFANSpapers/AIJRFANS19-401.pdf>)
6. Establishing and Comparing Electrical Energy Consumption of Sawmills. *International Journal of Applied Management Science*; 2020 Vol.12 No.1, pp.23 - 49 (*Inderscience Publications, Scopus Indexed Journal*) DOI: 10.1504/IJAMS.2020.105299.
Dayakar G. Devaru, Ramakrishna Maddula, and Bhaskaran Gopalakrishnan

7. Regression Model to Estimate Electrical Energy Consumption of Lumber Sawing based on product, process and system parameters. *Energy Efficiency Journal*, Issue 8, 2020 (*Springer Publications, Scopus Indexed Journal*) DOI: 10.1007/s12053-020-09907-y
Dayakar G. Devaru, Bhaskaran Gopalakrishnan
8. Energy Conservation Potential in Micro, Small and Medium Enterprises (MSME) of India - Case Study, *JSS Journal of Scientific Studies 1 (1)*, 11-19, 07/2022
Dr. Dayakar. G. Devaru, Pratheek Poovaiah, Dr. Mohan N
(https://drive.google.com/file/d/1jvZfsexQ1fAtQEguHRq6fw7S-HHdqCEn/view?usp=drive_web)
9. Optimization of the Distribution Network of Packaged Food Industry
International Journal of Innovative Research in Science, Engineering and Technology, Vol. 12, Issue 8 Pages 10821 – 10829, 2023, DOI: 10.15680/IJIRSET.2023.1208042
Dayakar G. Devaru, K O Prajwal, Pramod A N, Mohamed Mani, Sumair Khan, Prajwal M P
10. An unexplored sector for Energy Conservation - MSME of India
International Research Journal on Advanced Engineering Hub, Volume: 2, Issue: 4, Pages: 851-860, DOI: 10.47392/IRJAEH.2024.0120
Dayakar. G. Devaru, Kiran A S, Rathnakar G, Mohan N, H N Rajendra Prasad
11. eQUEST Based Building Energy Modeling Analysis for Energy Efficiency of Buildings
Energy Engineering 2024, 121(10), 2743-2767. (*Scopus Indexed Journal*)
Saroj Lamichhane, Roseline Mostafa, Bhaskaran Gopalakrishnan, **Dayakar G. Devaru**
10.32604/ee.2024.051035
12. Energy and Exergy Analysis with Heat Exchanger Network Optimization of an Indian Dairy Industry
Energy Engineering 123(8), 2026, 1-26 (*Scopus Indexed Journal*) DOI:10.32604/ee.2026.080851
Kiran A S, **Dayakar G. Devaru**, Mohan N, Bhaskaran Gopalakrishnan
13. Significant factors that govern the NAAC Accreditation Ranking of Higher Education Institutions of India, *Int. J. of Management in Education (Scopus Indexed Journal)* (under review)
Dr. Dayakar G. Devaru, Mr. Akshay H K, Dr. Rathnakar G, Dr. Mohan N, Dr. N. Haraprasad, Dr. Shwetha Subbanna
14. Regression-Based Modeling of Electrical and Thermal Energy Consumption in an Indian Dairy Industry
Kiran A S, Dayakar. G. Devaru, Rathnakar G, Rishi J P and Bhaskaran Gopalakrishnan
Energy Engineering: (Scopus Indexed Journal) (under review)

Conference Papers

1. Algorithm for detecting defects in wooden logs using ground penetrating radar, *Intelligent Systems in Design and Manufacturing*, SPIE Proceedings: 2005 Vol. 5999 (*Scopus Indexed*).
D. Devaru, U. Halabe, B. Gopalakrishnan, S. Agrawal, S. Grushecky, DOI: 10.1117/12.630835
2. Comparative Studies on Straight Profile Bearing and Crowned Profile Bearing using FEA as a Tool. *National Conference Proceedings on Advances in Mechanical Engineering and Applied sciences*, 2016.
Dr. Rathnakar G, Dr. Harishanand K.S., **Dr. Dayakar G**, Dr. Adarsh H. Hiriannah, Dr. Desaleng Wogaso
3. Investigations on the use of Polymer Composites as Fire Retardant Materials. *National Conference Proceedings on Advances in Mechanical Engineering and Applied sciences*, 2016.
Dr. Rathnakar G, Dr. Harishanand K.S., **Dr. Dayakar G**, Dr. Desaleng Wogaso, Dr. Getnet Sewner
4. Indian Sugar Industries Profile, Problems and Energy Efficiency Solutions.
Paper No. 174, International Conference on Innovations in Engineering, Technology and Sciences, NIEIT, Mysuru, Sept. 2018.
Mr. Abhinandan H H, **Dr. Dayakar G. Devaru**

5. Extraction of Water from Air Using Renewable Energy,
National Conference on Research Advances in Engineering & Technology, CSI Engineering College, Ketti Valley, Ooty 2019
Dr. Dayakar G. Devaru, Mr. Ravishankar M.D., Dr. Rathnakar G.
6. Reliability Analysis for an Optimal DG Placement and Sizing for A Radial Distribution System
2022 IEEE 2nd Mysore Sub Section International Conference (MysuruCon), 1-9
HC Shankar, N Mohan, BS Ravishankar, KJS Kumar, **D Devaru** (*Scopus Indexed*)
DOI:10.1109/MysuruCon55714.2022.9972519
7. Reassessment of Power Losses and Enhancement of Techno-Economic Feasibility in a Radial Distribution System
2022 IEEE 2nd Mysore Sub Section International Conference (MysuruCon), 1-6
R Roshan, BS Ravishankar, N Mohan, KJS Kumar, **DG Devaru** (*Scopus Indexed*)
DOI:10.1109/MysuruCon55714.2022.9972726
8. 'Energy Conservation Potential in Educational Institutions of India – Case Study'
6th International Conference on Smart and Sustainable Developments in Materials, Manufacturing and Energy Engineering (SME-2025) on 6th & 7th February 2025 at NMAM Institute of Technology, Nitte, Mangaluru (AIP Conference Proceedings indexed in SCOPUS)
Dr. Dayakar G. Devaru, Dr. Rathnakar G, Dr. Mohan N, Mr. Ravishankar B. S., Kiran A S, Dr. Bhaskaran Gopalakrishnan
9. Energy Conservation Opportunities for an Indian Dairy Industry
Kiran A.S., **Dayakar G. Devaru**
16th International Conference on Advances in Computing, Control, and Telecommunication Technologies, ACT 2025 DOI:01.GIJET.11.2.721
10. Comparative Study of Epoxy-based Composites Reinforced with Glass Fibre, Natural Fibre, Graphene, Aramid Fibers and Investigation on the Effect of Fibre Orientation on the Strength of Polymer Composite, *16th International Conference on Advances in Computing, Control, and Telecommunication Technologies, ACT 2025* DOI:01.GIJET.11.2.759
Rathnakar G., **Dayakar G. Devaru**
11. Evaluating the Impact of Industrial Internships on Technical Education: Benefits, Challenges, and Strategic Recommendations
International Conference on Advances in Mechanical Engineering and Material Sciences (ICAMEMS – 2025) on March 7 – 8, 2025 at Vidyavardhaka College of Engineering, Mysuru
Rathnakar G, Anantha Krishna G L, **Dayakar G. Devaru**
12. The development of an integrated compact abrasive jet cum sand blasting machine for manufacturing industries
International Conference on Advances in Mechanical Engineering and Material Sciences (ICAMEMS – 2025) on March 7 – 8, 2025 at Vidyavardhaka College of Engineering, Mysuru
Rishi J P, Darshan S M, **Dayakar G. Devaru**
13. 'Chainless transmission using elbow mechanism' presented in the conference “*Advanced multidisciplinary innovations in science & engineering for industry 5.0*” (*AMISE 5.0*) organized by the Department of Mechanical Engineering, Dayananda Sagar Academy of Technology & Management on March 30th, 2026.
Samarth G. Rao, G M Swamy, Rathnakar G, Gururaja M N, **Dayakar G. Devaru**
14. 'The adverse effects of performance appraisal: a study' presented in the conference “*Advanced multidisciplinary innovations in science & engineering for industry 5.0*” (*AMISE 5.0*) organized by the Department of Mechanical Engineering, Dayananda Sagar Academy of Technology & Management on March 30th, 2026.
Samarth G. Rao, G M Swamy, Rathnakar G, Gururaja M N, **Dayakar G. Devaru**
15. 'Leveraging IoT for the efficient maintenance of essential machinery components in large scale industries' presented in the conference “*Advanced multidisciplinary innovations in science & engineering for industry 5.0*” (*AMISE 5.0*) organized by the Department of Mechanical Engineering, Dayananda Sagar Academy of Technology & Management on March 30th, 2026.
Samarth G. Rao, G M Swamy, Rathnakar G, Gururaja M N, **Dayakar G. Devaru**

Books and Book Chapters

1. Book Chapter No. 5, 'Evaluating the Influence of Energy Consumption on Process Plan Attributes: Process Plans Indexing Based on Electrical Demand and Energy Consumption' (pages 91-109) *Handbook of Research on Advancements in Manufacturing, Materials, and Mechanical Engineering, 2021, IGI Global publications*
Omar Ahmed Al-Shebeeb, Bhaskaran Gopalakrishnan, **Dayakar Devaru**
2. Marketing Management - *Text Book published by Iterative International publishers in 2024.*
Authors: Dr. Rathnakar G, **Dr. Dayakar G. Devaru**, Dr. G M Swamy
ISBN:978-93-6252-128-6, <https://store.iipbooks.com/book/marketing-management-2/>
3. Integrating Tutors and Mentors into the K-12 and Higher Educational Framework in the book titled '*Virtual Tutors & AI-Powered Instructional Tools in K-12 Settings*' *IGI Global publications*
Ranjeeta Saini, Dayakar G. Devaru, Sanva Yadv, Ratan Sarkar, J. Rajini
4. Optimization of Assembly Line Layout of Toroidal Transformer, Chapter no. 33 in book titled 'Advances in Mechanical Engineering and Material Sciences', published by Taylor and Francis Group, Dec 2025
Devaru, Dayakar G., Rathnakar G., Rishi J.P., Kiran A.S., Gopalakrishnan Bhaskaran., Aisiri D., Bhat Bhargavi G., Sumukh S., Shreyas Aradhya A.C.
DOI: 10.1201/9781003725053-33

Patents published

1. "A System and Method for Extraction of Water from Air Using Renewable Energy"
Indian Innovation Patent published on March 28th 2025 (Application No.202541026247)
Dr. Dayakar G. Devaru, Dr. Rathnakar G, Dr. Vijaya Kumar M. S., Dr. Rishi J P, Mr. Ravishankar M D, Dr. Shwetha Subbanna, Mr. Kiran A S
2. Atmospheric water extraction system powered by renewable energy
Indian Innovation Patent published on Feb 06th 2026 (Application No: 202541085041)
Dr. Dayakar G. Devaru, Dr. Rathnakar G, Dr. Vijaya Kumar M. S., Dr. Rishi J P, Mr. Ravishankar M D, Dr. Shwetha Subbanna, Mr. Kiran A S

Details of Energy Audit Consultancy done at JSSSTU

S.N.	Company or Industry name	Fee received including GST(₹)	Completion Date	Cost savings (₹) & % Savings given
1	M/s JSS Women's College Saraswathipuram, Mysuru	17,700	27/1/22	7,04,400 (27%)
2	M/s. JSS Womens College Kollegala,	18,700	9/2/22	61,761 (31%)
3	M/s. JSS Degree College, Ooty Road Mysuru	17,700	3/3/22	3,25,640 (19%)
4	M/s. NIE, Mysuru	21,600	29/4/22	6,97,805 (13%)
5	M/s. NIE IT, Mysuru	23,600	24/5/22	399,264 (23%)
6	M/s JSS Law College, Mysuru	17,700	6/8/22	2,19,971 (17%)
7	M/s DRDO, Mandya	35,400	4/11/22	12,98,309 (19%)
8	M/s. Seshadripuram Degree College, Mysuru	23,600	10/03/23	64,235 (13%)
9	M/s. JSS Hospital, Mysuru	177,000	05/05/23	83,46,818 (18%)
10	M/s. JSS AHER, Mysuru	2,06,500	01/16/24	49,20,505 (20%)
11	M/s DRDO, Mandya (Earthing & Lightning Test)	41,300	31/5/24	-
12	M/s. JSS AHER, Mysuru 2 nd Audit	1,03,000	5/2/25	56,90,384 (19%)
13	M/s JSS Ayurveda Medical College and Hospital	23,600	13/10/25	13,37,673 (35%)
14	M/s Teresian College	29,500	25/04/26	3,13,523 (18%)
15	M/s JSS University, Noida	1,53,400	03/06/26	1,40,51,570 (50%)
	Total	₹9,10,300		₹3,84,31,858

Professional Experience

Professor, Department of Industrial & Production Engineering, SJCE, JSSSTU **2019 - Present**

Courses and labs handled:

Operations Research	Kinematics of Machines	Energy Audit
Industrial Engineering & Ergonomics	Dynamics of Machines	OR & Statistics Lab
Lean & Agile Manufacturing	Operations Management	Foundry Lab
Industrial Engineering & Ergonomics lab	Universal Human Values	Metrology Lab
Mechanics of Materials	Data analysis for Engineers	Machine Shop

Accomplishments

- Conducted Energy Audits to Colleges for NAAC accreditation purpose and other industries.
- Worked as Reviewer of Inderscience Publications Scopus Indexed Journals 'International Journal of Manufacturing Research' and 'International Journal of Electronic Business' & 'Energy Efficiency' - Springer Journal.
- Worked as 'Track Chair' for IEEE 'MysoreCON' 2022 International Conference held between 16th to 17th Oct 2022 in JSS Science and Technology University.
- Chaired the Mechanical Engineering Session in IEEE 'MysoreCON' 2022 International Conference held between 16th to 17th Oct 2022 in JSS Science and Technology University.
- Chaired the 6th National Conference on 'Emerging Trends in Engineering & Technology' organized by GMIT on 15th May 2020.
- Worked as reviewer of conference papers of 'International Conference on Recent Trends in Science & Technology' organized by ATME College of Engineering, Mysore from 17/06/20 to 18/06/20 and International Conference on Sustainable Technologies (ICST) organized by the Department of Mechanical Engineering, NIE Mysuru on 19th and 20th February, 2025.
- Guiding Ph.D dissertation titled 'Assessing and Improving the Energy Efficiency and sustainability of a Milk Processing Industry' of Mr. Kiran A S.
- Organized Webinars, Industrial visits, sent proposals, published papers and obtained NPTEL certifications.
- Worked as Paper Setter, Examiner, BOS and BOE member for other Autonomous Engineering Colleges and Universities.
- Worked as University Academic Council member from 2021 – 2024.
- Worked as University level NAAC Criteria 2 coordinator, Suttur Jatra exhibition coordinator and anti-ragging squad member.
- Worked as 'Open Day' Chief Coordinator and won 1st prize for IP Department in June 2026.

Associate Professor & Head, Dept. of Mechanical Engineering

2016 - 2019

NIE Institute of Technology, Mysore

Courses and labs handled:

Operations Research	Statistical Quality Control
Energy and Environment	Energy Audit
Computer Aided Engineering Drawing	Elements of Mechanical Engineering
Metallography and Material Testing Lab	Measurements and Metrology Lab
Foundry and Forging Lab	Workshop Practice Lab

Accomplishments

- Organized trainings, workshops, technical talks, industrial visits and FDPs to students and faculty to improve knowledge and skills.
- Chaired the Conference Paper Presentation session in Mechanical Engineering stream in *International Conference on Innovations in Engineering, Technology and Sciences held at NIEIT, Mysuru in Sept. 2018.*
- Juried 'CogNIEscience' a national level student technical paper presentation contest in Manufacturing and Management stream at National Institute of Engineering in 2017.

- Instrumental in getting ‘Memorandum of Understanding’ Signed with Premier CADD, a training center and conducted CATIA training to Mechanical Engineering students and generated a revenue of 58,000/- to the institution.
- Obtained student project funds from KSCST and sent project proposals to VGST, DST.
- Successfully coordinated to obtain VTU research center status for Mech Engg. Department.

Assistant Professor - West Virginia University

2008 – 2015

- **Taught classes of ‘Computer Aided Process Planning’ and ‘Advanced Production Control’** (Graduate Courses of ‘Industrial Engineering’ department).
- **Guided one Master’s Thesis and five Bachelor’s Capstone Project.**

Lecturer - West Virginia University

2003 – 2006

- **Taught classes in ‘Statistical Quality Control’ and ‘Manufacturing Processes’,** undergraduate courses of IE department.
- Assisted in **ABET** activities of the IE department by processing the evaluation data.

Lead Energy Engineer – WVU Industrial Assessment Center

2008 – 2015, 2003 – 2006

Responsibility: Conducting energy assessments in manufacturing facilities, power plants and commercial buildings involving analysis of **energy saving opportunities** and developing detailed assessment report with recommendations to save energy for various **Energy systems** (HVAC, Lighting, Boilers, Furnaces, Turbines, Motors, Compressors, Chillers, Pumps etc.,).

Accomplishments

- As a Lead Auditor, conducted more than 50 industrial facility and power plant energy assessments of ‘Industries of the future’ – WV Division of Energy (WVDE) funded project.
- Led and mentored a team of 5 energy engineers to do energy assessments, develop energy saving recommendations and write technical reports.
- Participated in more than 65 industrial facility energy assessments of ‘Industrial Assessment Center’ – US DOE funded project and developed more than 100 energy assessment reports.
- Conducted more than 100 commercial buildings energy assessments in ‘Rural Business Assistance Program’ – USDA funded project.
- Assisted clients in the implementation of energy recommendations by developing detailed implementation plan by interacting with vendors.
- Developed training material and trained government building managers, performance contractors and industrial people in Energy efficiency improvement of buildings and industrial energy systems.
- Participated in writing proposals to get funding for energy efficiency and productivity improvement research projects.

Significant Contributions:

Recommended a total dollar savings of around **\$10,000,000** for 65 industrial facilities that were assessed under ‘Industrial Assessment Center’ – US DOE funded project and the total implemented dollar savings was around **\$3,500,000** for 60 of those facilities. In recognition to this contribution, received ‘**Outstanding Industrial Assessment Center Engineering Student**’ award for the year 2014 by US Department of Energy.

Quality Engineer-Mid-Continent Cabinetry, Lynchburg, VA

2006 - 2007

Role: Responsible for Continuous Improvement of cabinetry manufacturing plant

Accomplishments

- Improved **Energy Efficiency** of various energy systems by implementing energy efficient lighting, energy efficient motors, compressor recommendations like reduce air leaks, reduce pressure and VFD on pumps and fan motors.
- Increased the **First Pass Yield** of the finishing line from **85%** to **90%** in 2 months by Implementing Process Control, Preventive maintenance, Standardizing pump room procedure and Improving Material handling
- Started **data collection** and **reporting** from key points in the line to figure out different quality issues.
- Developed Process **Flow Charts** and Process **FMEA** for finishing line and conducted **brainstorming** sessions to analyze its quality issues and came up with action plan to fix them.
- Improved quality by developing **standards** for sanding, stain and final inspections
- Conducted **time study** on assembly line, figured out the bottle necks and took necessary actions to reduce down time. Production numbers increased from **480** to **620** cabinets per shift after doing **assembly line balancing**.
- Eliminated door hinging rejections by **mistake proofing** the hinging process.
- Designed overhead conveyor line that saved space and **product transportation** time.

1998 - 2002

Senior Engineer, Production Engg. Dept - BPL Engineering Ltd, India,

Role: Responsible for production support activities of Speaker Assembly Plant.

Accomplishments

- Developed and implemented **work instructions** and **process flow charts** for loud speaker assembly line.
- Conducted **PFMEA** and found out potential failure modes, their root causes and actions to mitigate them.
- Developed and implemented **Process control plan** and **process control charts** from PFMEA.
- Conducted internal audits for **QS 9000** implementation.
- Developed **inspection** and testing procedures for products and conducted **MSA** – Gauge R&R studies.
- Designed and drafted jigs and fixtures and new speaker parts using **AutoCAD**.
- Coordinated in the implementation of **continuous improvement projects** like Kaizen, KANBAN, TPM, 5S etc.,

Significant Contributions:

- **Reduced** the **rejections** of the telephone speakers from **18%** to less than **0.2%** by developing a new process to manufacture them which gives Uniform Sound Output for the sound frequency range of 300 to 3400 Hz.
- **Designed** a glue applicator **cam** for speaker cone paper which eliminated the need of buying a robot.
- **Doubled** the production of automatic diaphragm forming machine through **kaizen** project.

Seminars, workshops, NPTEL courses and Faculty Development programs attended:

1. One day programme on “ISO 9000” at SJCE Mysuru (11/07/1998)
2. 5 days Festo Didactic Seminar P 111 “Introduction to Pneumatics” (27/09/1999 to 01/10/1999)
3. National Safety Council Training Program “Testing & Examination of Lifting Tackles & Pressure Vessels” (28/5/2000 to 30/05/2000)
4. One day program “Effective Meetings” by Virginia Department of Business Assistance (10/02/2007)
5. Seminar on “Fundamentals of Compressed Air Systems” by West Virginia University Industrial Assessment Centre (31/01/2012)
6. Workshop on ‘Design and manufacturing of composites with hands on experience’ at NIET (14/09/2016)

7. One day awareness programme on “Intellectual Property Rights for MSME’s Researchers and Academicians” at NIEIT.
8. International Symposium on ‘Smart Grid Technologies’ organized at NIEIT. (01/27/2017 to 01/28/2017)
9. One day faculty development programme on ‘OBE and NBA accreditation’ at ‘The National Institute of Engineering’. (03/30/2017)
10. One day seminar on ‘Recent Trends in Sustainable and Clean Energy Technologies’ at NIEIT. (17/04/2017)
11. Two days Faculty Development Program on ‘Industrial Design – Automotive Workflow’ at ATME College of Engineering, Mysuru. (30/01/2017 to 31/01/2017)
12. One week faculty development program on ‘An overview of Design of Machine Elements II’ at ATME College of Engineering, Mysuru. (16/01/2018 to 20/01/2018)
13. Workshop on ‘New Model Curriculum for First year BE/B.Tech-CBCS Detailed Syllabus (2018-19) as per Outcome-Based Education format including Course Outcomes and Bloom’s Taxonomy’ at Sahyadri College of Engg. and Mgmt., Mangaluru. (19/05/18)
14. Two days workshop on ‘Prior Art Search’ at NIEIT, Mysuru. (29/06/18 to 30/06/18)
15. ‘State and Local Energy Policies: Trends in Energy Benchmarking and Disclosure’ organized by AABC COMMISSIONING GROUP, USA on 8/29/2019
16. ‘Essential Techniques and Calculations for Energy Managers & CxAs’ organized by Energy Management Association, USA on 9/19/2019
17. Cleared ARPIT 16 weeks online course titled ‘Data Analysis for Social Science Teachers’ with first class in February 2020.
18. ‘Application of Statistical tools and Energy Engineering’ organized by Shree L. R. Tiwari College of Engineering, Thane from 5/20/2020 to 5/21/2020.
19. ‘Insights to INDUSTRY 4.0’ organized by S.A. Engineering College, Chennai on 5/29/2020.
20. ‘Recent Advances in the Processing of Light Weight Metallic Materials’ organized by Bethlahem Institute of Engineering, Chennai on 6/15/2020.
21. ‘Advances in Machining Process’ organized by PES Institute of Technology and Management, Shivamogga from 6/17/2020 to 6/19/2020.
22. ‘Industry 4.0 - Smart Factory’ organized by The National Institute of Engineering, Mysuru on 6/19/2020.
23. ‘Effective Teacher's Toolkit post COVID’ organized by National Institute of Engineering on 7/6/2020.
24. ‘Engineering Management and Entrepreneurship Series II’ organized by SJCE, JSS Science & Technology University from 9/1/2020 to 9/3/2020.
25. ‘Genetic Algorithm for Absolute Beginner’ organized by Padre Conceicao College of Engineering, Verna, Goa on 9/9/2020.
26. ‘AI for Everyone’ organized by SJCE, JSS Science & Technology University from 9/12/2020 to 9/14/2020.
27. ‘Building Analytics for COVID-19 and Post-COVID-19 Building Operations’ organized by Energy Management Association, USA on 9/17/2020.
28. ‘Cryogenics & Superconductivity – A Research Perspective’ organized by Coorg Institute of Technology from 9/21/2020 to 9/26/2020.
29. ‘Healthy Lifestyle Management during and after COVID Scenario’ organized by SJCE, JSS Science & Technology University from 10/19/2020 to 10/23/2020.
30. ‘Energy Benchmarking as a Service with ENERGY STAR’s Portfolio Manager’ organized by Energy Management Association, USA on 12/3/2020
31. Cleared NPTEL course titled ‘Work system Design’ with Silver Elite status in Dec 2020.
32. Cleared NPTEL course titled ‘Introduction to Operations Research’ with Silver Elite status in Dec 2020.
33. ‘3D Printing & Design’ AICTE FDP from 2/1/2021 to 2/5/2021.
34. ‘Inculcating Universal Human Values in Technical Education’ AICTE FDP from 8/16/2021 to 8/20/2021.
35. ‘Understanding the Role of Analytics as a Strategic Tool for Proactive Energy Management’, organized by Energy Management Association, USA on 8/24/2021.

36. 'Energy Data Analysis and Machine Learning: Real-World Examples' organized by Energy Management Association, USA on 02/10/2022.
37. 'Magneto Rheological Abrasive Flow Finishing Process' organized by Simats School of Engineering on 27/07/22.
38. Two Day Workshop on JMP Software held at 'JSS Science & Technology University' on 12th and 13th Sept 2022.
39. 5-day 'Face-to-Face UHV-II FDP' held at R V College of Engineering between 5th to 9th September 2022 and sponsored by AICTE.
40. 'Become Entrepreneur Through Practicing Advances in CFD' organized by Simats School of Engineering on 28/09/22.
41. One week Faculty Development Program on "Cutting-Edge Developments and Research Frontiers in Mechanical Engineering" organized by R&D Cell of SRM Madurai College for Engineering and Technology from 4th to 9th December 2023.
42. Six days Faculty Development Program on 'Recent advancements in Materials, Manufacturing and Technology' organized by Swarnandhra College of Engineering and Technology from 30/10/2023 to 04/11/2023.
43. Two-week faculty development programme on "Opportunities and Challenges in Entrepreneurship," organized by JSSATE STEP, Bengaluru from January 3rd to January 19th, 2024.
44. Four days Faculty Development Program on "Innovation in Renewable Energy and its Application" at JSS Science and Technology University, Mysuru from 09/09/2024 to 12/09/2024.
45. One-week ATAL Faculty Development Program on Nanomaterials at JSS Science and Technology University, Mysuru from 06/01/2025 to 11/01/2025.
46. Two days Training Program on 'Low Carbon Buildings Transition' by Indian Green Building Council held at JSS Science and Technology University from 29/05/2025 - 30/05/2025.
47. One-week ATAL Faculty Development Program on 'Next-Generation Technologies for Energy Efficiency and Sustainable Innovation' at Vikas College of Engineering & Technology from 02/02/2026 to 07/02/2026.
48. One-week ATAL Faculty Development Program on 'Stress Management and Productivity Enhancement' at School of Technology from 09/02/2026 to 14/02/2026.
49. One day 'Quality Conclave' at JSS Academy of Higher Education and Research on 01/06/2026.

Seminars, workshops, FDP's, Industrial Visits and conferences organized / coordinated:

1. One week FDP on 'Instructional Design and Delivery' conducted by NITTTR, Chennai (January 2018) at NIEIT, Mysuru.
2. Three days Short-term training program on 'MasterCAM X9 and its applications in CNC' at NIEIT, Mysuru (25/07/18 to 27/07/18).
3. International Conference on Innovations in Engineering, Technology and Sciences held at NIEIT, Mysuru on Sept.21st & 22nd 2018.
4. CATIA Certification training program by Dassault Systems authorized training partner Premier CADD in NIEIT, Mysuru (Oct to Dec 2018).
5. Two days workshop on 'Automobile Mechanics & IC Engine Designing' by GeeksLab at NIEIT, Mysuru (Mar 13th & 14th 2019).
6. Organized Industrial Visit to 'Government Tool Room and Training Centre' for 5th Semester IP students on November 7th 2019.
7. Organized Industrial Visit to 'Mangalore Refinery and Petrochemicals Limited' for 4th Semester IP students from January 31st to Feb 1st 2020.
8. One week Expert Talk Series 'Essential Skills to become an Industrial Engineer', JSSSTU, Mysuru (27/7/20 to 01/08/20).
9. Coordinated 'Smart India Hackathon 2022' Grand Finale National level event held between Aug 25th to 26th 2022 at 'JSS Science & Technology University' and sponsored by AICTE.
10. Organized Industrial Visit to 'Mangalore Refinery and Petrochemicals Limited' for 7th Semester IP students from November 22nd to 23rd 2022.

11. Organized Expert Talk titled 'Opportunities in Industrial Engineering in the US – Supply Chain, Finance & Analytics' on Dec 30th 2022.
12. Delivered invited talk on 'Energy Management and Conservation' at VVCE on 13/12/25.

Courses taken at West Virginia University:

Manufacturing Stream	Statistics / Quality Stream	Decision Sciences Stream
Computer Integrated Manufacturing	Engineering Statistics	Applied Linear Programming
Advanced Manufacturing Processes	Advanced Analysis Engineering Data	Scheduling/Sequencing Methods
Advanced Production Control	Design-Industrial Experiments	Advanced Engineering Economy
Computer Aided Process Planning	Quality/Reliability Engineering	Cost and Estimating
Simulation by Digital Methods	Total Quality Management	Programming Stream
Systems Safety Engineering 2	Advanced Data Mining	Computer Applications – Industr. Engg
Industrial Ventilation Design	Applied Stochastic Processes	Expert Systems in IMSE
Energy & Sustainability	Advanced SAS Programming	Designing Decision Support System

Technical Skills

Software

- Operating Systems : Windows 7/8/10, UNIX, MS-DOS
- Applications : Minitab, JMP, Design Expert, Cplex, MS Office, WinQSB
- Programming Languages : SAS, Visual Basic, MATLAB, Turbo C, C++
- Modelling Packages : AutoCAD, Solid works, Solid Edge
- Simulation packages : Arena, Pro model, SOLIDCast, eQUEST 3.63

Concepts

- ISO 50001, SEP, M&V, Energy Efficiency, Energy Audits, Energy Management, Continuous Improvement,
- ISO 9000, QS 9000, TQM, SPC, FMEA, QFD, DMAIC, DFSS, DOE, Taguchi's Orthogonal arrays, Fault tree analysis, Kaizen, Six Sigma, Control Plan, Control Charts, Process Mapping.
- MRP, GD&T, TPM, ABC, JIT, 5S, Time Study, Motion Study, Assembly line Balancing, Forecasting, Capital Investment Analysis, Inventory control, Lean manufacturing, Kanban, Value Engineering & Facility Planning.

Diagnostic Equipment:

Power Quality Analyzer, Current Transducers, Data loggers, Multimeter, Ultrasonic Leak Detector, Pressure Transducers, Pressure Gauges, Pressure Transmitters, Light Meter, Ballast Discriminator, Flue Gas Analyzer, Infrared temperature gun, Infrared Thermal Camera, Vibration Meter, Manometer, Hot Wire Anemometer, Air Flow Meter, Thermocouples, Temperature Sensors, Tachometer, Strain gauges, Level transmitters, Flow meters - Ultrasonic, Venturi, Orifice and Turbine etc.,

Professional Affiliations

- Member of 'Association of Energy Engineers'.
- Member of 'ALPHA PI MU' Industrial Engineers Honor Society.

Google Scholar Statistics

Citations	84
h-index	5
i10-index	3

Personal Details:

Date of Birth: 28 October 1976

Father's Name: Late Prof. C. Gurupada Devaru (former faculty at SJCE, Mysuru)

Mother's Name: Sundaramma

Spouse's Name: Dr. Shwetha S (Assistant Professor at SDM, Mysuru)

Daughter's Name: Tanya Dayakar

Brother's Name: Dr. Rathnakar G (Professor & Associate Dean, Dept. of Mech Engg. SJCE, JSS S&TU, Mysuru)

Nationality: Indian

Languages known: Kannada, English, Hindi

Hobbies: Pencil Sketching, Photography, Astrology, Numerology, Palmistry, Gym

Permanent Address: #1037, 11th Cross, 2nd Stage, J.P. Nagar, Mysore – 570008, Karnataka, India

P.S.: References are available upon request.