Name of Faculty Dr. G. SURESH BABU

Designation Professor Nature of Job/Appointment Regular Date of Joining 08-11-1998

E-mail gsureshbabu_eee@cbit.ac.in

Education Qualifications Name of the Degree

Ph. D Doctor of Philosophy (Electrical Engg.) Awarded

1st Class PG M. Tech (Industrial Drives & control)

UG A.M.I.E. Second class

Work Experience

32 Years Teaching Research 16 1/2 years

Industry Others

Area of Specialization Electric Drives, Energy Management, Renewable Energy

> MIE - M-122165-5 ISTE - LM 21858

LMISLE - LM1904 1. Head of the Department since September 2018 to till date.

Responsibilities held at Institution

Responsibilities held at Department

Professional Memberships

Level

Level

Awards Received

2. Member, Skill development Center, CBIT

3. Convener-Energy Savers' club 4. Convenor- Geervana Bharathi

1. Chair Person, BoS

2. Worked as In-charge DSP Lab from 04-05-2009 to 17-08-2010

3. In-Charge C & M Lab from 04-05-2006 to 10-09-2018 4. Worked as PG Coordinator

5. In-Charge Consultancy 6. In-charge Project Lab

Research Guidance 08 (In Progress)

> 1.Dr .G.Suresh Babu received " Outstanding Contribution to Engineering Education Award" from Imperial Society of Innovative Engineers (India) on 14th June 2021.

2. Dr. G. Suresh Babu received "Dr APJ Abdul Kalam Best teacher award" from INTERNATIONAL Organisation of Innovative Research

and Publishers, on 28th February, 2020.

3. Dr. G. Suresh Babu received "Honourable Jury Mention (International Achievement)" from EET CRS 8th Science &

Technology Awards-19, Bangalore on 09th June2019.

4. Dr. G. Suresh Babu received "Distinguished Faculty in Engineering" from Venus International Foundation, Chennai on 7th

July, 2018.

Electromagnetic Theory, Electrical Measuring Instruments Utilization of Electrical Engineering, Reliability Engineering, Human Values and Professional Ethics, Renewable Energy Sources; Energy management, Research Special Electrical Machines Methodology, Advanced Synchronous Machine Theory, Machine

Modelling, Advanced Electric Drives

Courses Handled at Under Graduate / Post Graduate Level.

Class

No. of Papers Published

Projects Carried out

Patents

Technology Transfer

Invited Speaker (Few Important/ Prominent)

National Journals - 00

International Journals - 23

National Conference – 09 International Conference – 09

- Completed R&D project titled "Design and Development Grid Tied Inverter for Renewable Sources Applications", Sponsored by R & D, Institution of Engineers (India) Kolkata in 2016.
- Completed R&D project titled "Design and Development of Solid Rotor Alternator" Sponsored by CBIT R&D in 2013.

- Delivered guest lecture during the International Conference on Recent Innovations in Smart Grid and Renewable Energy, held at JBIET Hyderabad, on 9th Jan., 2020.
- Resource person for the lecture conducted by Sri Saraswathi Vidya Peetham, on eve of Sri Ramanujan Jayanthi Celebrations on Nov. 27, 2019.
- Resource person for AICTE- FDP "Power Electronics for Renewable Energy Systems - Present Trends and Future Scope" (PERES-2017)", EEE Dept., CBIT(A) Nov-2017
- 4. Resource person IE(I) chapter on, "Latest Trends in Electric Drives", at RGMCET on 30-12-2015.
- Resource person IE(I) chapter on, "Application of Vedic Mathematics in Engineering", at RGMCET on 29-12-2015.
- Resource person IE(I) chapter on, "Strategies for Successful Completion of Final Year Engineering Projects", at RGMCET on 29-12-2015.
- Resource person on "Electro Magnetic Fields" at Guru Nanak Institutions of Technical Campus on 01-09-2015.
- Resource person on "Overview of Mahavera's Ganita Sara Sangraha" at Institute of Scientific Research on Vedas on 30-08-2015.
- Resource Person in A National Level Workshop on "Recent Trends in Industrial Electrical Drives", EKATRA -2014, Khammam Institute of Technology and Science Khammam on 31-01-2014.
- 10. Resource person in ESC-JNTUH on "Special Machines-Significance of Solid Rotor Alternator", JNTUH on 30-01-2014.
- 11. Resource person at NIT-Calicut on "Engineering Applications of Vedic Mathematics" at Kerala on 09-01-2014.
- Resource person on "Promising Technologies in Power electronics" at Promising Technologies in Power Electronics and Power Systems, Dept. of EEE, JBIET(A), Hyderabad on 24-08-2013.
- 13. Resource person on "Electrical Heating Systems and Electrical Safety" at MDNL Hyderabad, on 27-06-2013.
- 14. Resource person UGC-ASC Three-week Refresher Course on "Artificial intelligence and its applications to power systems" at JNTUH during 24-06-2013 to 13-07-2013.
- Key note speaker, Guest of honour and Chaired International Conference on Smart Structures and Systems (ICSSS-2013), at Saveetha Engineering College, during 28-03-2013 to 29-03-2013
- Keynote speech on "Advances in Electrical and Electronics Engineering" at Sri Venkateswara Engineering College, Suryapet on 22-03-2013.
- 17. Chaired the sessions at the International Conference on "INDUCTICA 2012" at CWIEME-UK, at Bangalore, on 21-11-2012 to 22-11-2012.
- Resource person on "Engineering Applications of Vedic Mathematics" at Coimbatore Institute of Technology, Coimbatore on 11-07-2012.
- Resource person on "Applications of Vedic Mathematics in Engineering", Trushna EEE Association formation at Dept. of EEE, GITAM University, Hyderabad, on 24-08-2011.
- Resource person on "Applications of Vedic Mathematics in Electrical Engineering", at Veonix SAP Solutions Bangalore on 15-02-2011.
- Resource person on "Engineering Applications of Vedic Mathematics" at Institute of Scientific Research on Vedas I-SERVE, Hyderabad on 22-08-2010.
- Resource person in ASC-UGC Refresher Course "Advances in Power Electronics and Their Applications to Drives and Power Systems", at JNTUH on 10-11-2008.
- 23. Chaired sessions as Judge on "Save Energy 2005", ECM-

IE(I)Hyderabad, during 21-01-2005 to 23-01-2005.

- An article titled, "Vedic Maths- Applications Explored", in Vegam-SWIS the self-development academy souvenir VPL-2015, pp.14-15, Dec-2015.
- 2. An article "Solid rotor Alternator-An alternative to traditional System" in Electrical India Magazine, March 2015.
- 3. An article titled, "Vedic Mathematics In Micro Controllers", in Electronics For You Magazine, pp. 64-65, Feb-2015.
- 4. An article titled, "A Ray of Hope for Solar Applications Feasibility", in Electrical India Magazine, pp. 24-36, Oct 2012.
- An article titled, "Amaranthine Flower in the Math World Sapling", Ancient Indian Mathematicians I-Serve Hyderabad, pp.159-165.
- A Text Book for DECE 2nd Year "Basic Electrical Engineering", Falcon Publishers Hyderabad.
- A Text Book for DEEE & DEIE 1st Year "Basic Electrical Engineering", Falcon Publishers Hyderabad.
- A one-day online STTP titled "Principles and Advances in Electromagnetics" organized by Department of Physics, Center for Continuing Education, IIT Madras, India during 22-03-2021 to 27-03-2021.
- Attended a webinar titled "Energy Simulation for HVAC Optimization" organized by PEDA with the support of Bureau of Energy Efficiency (BEE), Ministry of Power, Government of India. on 18-03-2021 to 19-03-2021.
- 3. Attended a webinar titled "Turnip Innovation Festival 2021" organized by Turnip Innovations on 22-01-2021 to 23-01-2021.
- Attended a two-day workshop titled "Power Electronics Applications in Electrical Systems" at JNTU, Hyderabad during 28-12-2020 to 29-12-2020.
- Attended a two-week online Faculty Development Program on "Indian Knowledge systems in Contemporary Education & Practices "conducted by DCBS, Sri Sri University, Cuttack during 05-11-2020 to 19-11-2020.
- Attended one day webinar on "Outcome based Education Software" organized by vmedulife software services on 11-06-2020.
- Attended a two-day workshop on "AI for COVID-19 Outbreak Prediction/forecasting-DATA Analysis and DATA Visualization" at Eduxlabs through online from 02-05-2020 to 03-05-2020
- Attended a three-day workshop on "SOLAR PV Installation" at MSME-PPDC-AGRA- Govt.of INDIA from 27-04-2020 to 29-04-2020.
- Attended three-day webinar on "Electric solar vehicle project" organized by ISIE INDIA from 17-04-2020 to 19-04- 2020.
- 10. A Two-day Seminar on "Advanced Solar PV Technologies" at IICT, Hyderabad during 14-10-2019 to 15-10-2019
- A One-Week online-STTP on "Development of Laboratory Instruction and Manual" at CBIT, Hyderabad during 04-02-2019 to 08-02-2019
- A One Week MHRD FDP on "Internet of Things" at NIT Warangal during 08-05-2017 to 13-05-2017.
- 13. A Five-day FDP on "Management Capacity Enhancement Program for Administrators", at IIM Lucknow during 25-05-2015 to 29-05- 2015.
- 14. A Two-day workshop on "Advance Training Program on Green Building Rating Systems", at Hyderabad during 23-04-2015 to 24-04-2015.
- A Four-day workshop on "Outcome Based Education & Accreditation", at CBIT, Hyderabad during 03-02-2014 & 15-17 Feb-2014.
- A Two-day workshop on "Maintenance of 33/11 KV Substation, PTR's & DTR's, Distribution Network and SCADA", at CPTI/APCPDCL/ Hyderabad during 04-12-2013 to 05-12-2013.
- A Three-week UGC-Refresher Course on "Advances in Power Electronics and their applications to drives and Power systems", UGC Academic Staff College, JNTUH, during 07-11-2005 to 26-11-2005.
- A Two-week AICTE –ISTE STTP on "Application of Soft computing Techniques in Power Systems", BIT Mesra Ranchi, during 13.01.2003 to 25.01.2003

No. of Books/Chapter / Article Published with details

Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops. Other Trainings (Attended and/or Organized).

WS/ Seminars/ Conferences/ STTPS/ FDPs Organized

- Organized One Week AICTE STTP (Phase-III) on ""Trends and Challenges of Hybrid Electric Drive Utilities in Transport Sector", during 22-02-2021 to 27-02-2021.
- 2. Organized One Week AICTE STTP (Phase-II) on ""Trends and Challenges of Hybrid Electric Drive Utilities in Transport Sector", during 02-11-2020 to 07-11-2020.
- Organized One Week AICTE STTP (Phase-I) on ""Trends and Challenges of Hybrid Electric Drive Utilities in Transport Sector", during 03-08-2020 to 08-08-2020.
- 4. Organized an online webinar on "Trends and Challenges in the Progress of E-Mobility in India" in association with Pantech on 20-06-2020.
- Organized a Two-week On-line Training/Internship on "Simulation Tools for Electrical & Electronics Engineering" VIPRA during 08-06-2020 to 20-06-2020
- Organized National Energy Conservation Week Celebrations at CBIT during December 14-12-2019 to 20-12-2019.
- Organized a AICTE Sponsored One-Week STTP on "Introduction to research methodology & MATLAB programming for Optimization Techniques" during 25-11-2019 to 31-11-2019
- Organized an International Conference on "Vedic Mathematics" in Association with IAVM during 29-08-2019 to 31-08-2019.
- Organized a One-day Workshop on "Significance of MATLAB in Applications of Emerging Technologies in Association with MATHWORKS, on 26-06-2019.
- Organized a Five-day On-line STTP on "Development of Laboratory Instruction and Manual" in Association with NITTTR Kolkata during 04-02-2019 to 08-02-2019
- 11. Organized National Energy Conservation Week Celebrations at CBIT during December 14-12-2018 to 20-12-2018.
- Organized Two-Week AICTE FDP on "Power Electronics for Renewable Energy Systems - Present Trends and Future Scope" (PERES-2017)", during 13-11-2017 to 25-11-2017.
- 13. Organized National Energy Conservation Week Celebrations at CBIT during December 14-12-2016 to 20-12-2016.
- 14. Organized National Energy Conservation Week Celebrations at CBIT during December 14-12-2014 to 20-12-2014.
- Organized a Two-week ISTE- Refresher Course on "Application of Power Electronics in Power Systems", at CBIT during 25-11-2013 to 06-12-2013.
- 16. Organized One day seminar on "Concentrating Solar Thermal Technologies for Industrial & Commercial Application", at Institute of Engineers, State Centre, Hyderabad on 28-06-2013.
- 17. Organized National Energy Conservation Week Celebrations at CBIT during December 14-12-2012 to 20-12-2012.
- Organized a FIVE-day National Level FDP "INexorable March of Electrical Drives in Industrial Arena" INDIA- 2012 during 25-06-2012 to 29-06-2012.
- 19. Organized One day Seminar on "Nonconventional Energy for Everyone Every Day" NEED at CBIT on 27-08-2011.
- Organized Two-day State Level Technical Symposium for students of Degree and Professional Colleges in Andhra Pradesh at CBIT during 13-08-2011 to 14-08-2011.
- 21. Organized a One Week Technical Staff Development Program "VISRUTHA-2010", during 29-11-2010 to 03-11-2010.
- Organized various Guest Lectures during 18-08-10 to 10-01-2013.

Details of Journal Publications/ Conferences (National and International)

International Journal:

- G. Suresh Babu, A. Venkat Rao, C. Sharath Chandra and T. Murali Krishna, (2021) Adaptive Neuro Fuzzy Inference System Controller for Islanded Microgrid Under Nonlinear Load Conditions, International Journal of Electrical Engineering and Technology (IJEET), Volume-12, Issue-6, pp. 422-436
- 2. K. Krishnaveni, M. Swamy Das, G. Suresh Babu, T. Murali Krishna and N. Vasantha Gowri (2021) "Alternative Approaches for Laboratory Learning and Assessment in Engineering Education Open Source Alternatives", International Journal of Electrical Engineering and Technology, Volume 12, Issue 6, pp.221-230.
- T. Murali Krishna, N. Vasantha Gowri, G. Suresh Babu, C. Harish, N.V. Phanendra Babu and B. Akshita (2021) "Performance Comparison of BLDC Motor Based on Conventional and Expert Controllers", International Journal of Electrical Engineering and Technology (IJEET), Volume 12, Issue 6, pp. 211-220.
- T. Murali Krishna, N. Vasantha Gowri, G. Suresh Babu, B. Akshita, Garv Agarwal and Mahesh Netha, "Modelling and Development of Controller for BLDC Motor", International Journal of Electrical

- Engineering and Technology (IJEET), Volume 12, Issue 6, pp. 200-210.
- C. Harish, T. Murali Krishna, G. Suresh Babu, N.V. Phanendra Babu and D. Hrishikes Sai, (2021), "Simulation of IGBT based Solid State Fault Current Limiter using MATLAB/Simulink", International Journal of Electrical Engineering and Technology (IJEET), Volume 12, Issue 6, pp. 140-149.
- P. Chow Reddy, G. Suresh Babu and T. Murali Krishna (2020) "A Novel Approach in Audio Compression using Vedic Concepts", International Journal for Research in Applied Science & Engineering Technology, Volume 8, Issue 7, pp.1122-1125.
- Engineering Technology, Volume 8, Issue 7, pp.1122-1125.

 G. Suresh Babu, N. R. Sai Varun, T. Murali Krishna, C. Harish and D. Harsha (2020) "Performance Analysis of DC-DC Converter based Standalone PV System using Cloud Connected Solar PV Emulator" Strad Research Journal, Volume 7, Issue 6, pp.440-447.
- 8. G. Suresh Babu, T. Murali Krishna, C. Srisailam and N. Vasantha Gowri (2020) "Performance Evaluation of DC Electric Spring Placed in Micro Grid Systems Using Solar PV Emulator", International Journal of Electrical Engineering & Technology, Volume 11, Issue 4, pp.246-256.
- G. Suresh Babu, Sivasankar Venugopal, T. Murali Krishna (2020) "Inverse Definite Minimum Time Relay Coordination in Radial Traction System", International Journal of Electrical Engineering & Technology, Volume 11, Issue 4, pp.159-168.
- T. Murali Krishna, K. Krishna Veni, G. Suresh Babu, D. Sushma and C. Harish (2019) "Performance Evaluation of Induction Motor for Unipolar and Bipolar Pulse Width Modulation Techniques", International journal of innovative technology and exploring engineering, Volume -8, Issue-10, pp.3626-3629.
- 11. G. Suresh Babu, Sai Varun. N.R. (2019) "Performance Analysis of Solar PV Emulator Operated in Various Modes", International Journal of Research, Volume 8, Issue-5, pp.1305-1310.
- G. Suresh Babu, B Prem Charan and T Murali Krishna (2018) "Performance Analysis of SPW Module Using Solar PVTR System", International Journal of Engineering and Technology, Volume-7, Issue-3.3, Special Issue3, pp.68-72.
- T. Murali Krishna, Deepak Gehlot, N. Anusha and G. Suresh Babu (2018) "Three Phase Grid Connected PV System with LVRT Control Strategy", International Journal of Mechanical Engineering and Technology, Volume 9, Issue 7, July 2018, pp. 579–585.
- T. Murali Krishna, G. Suresh babu and B. Supraja (2018) "Simulation and Performance Analysis of Multi Source Inverter Topology for Renewable Energy Systems" International Journal of Emerging Technology and Advanced Engineering, Volume-8, Issue-2, pp.53-56.
- B. Prem Charan, G Suresh Babu and Priyanka Shukla (2017) "Determination of Parameters of a given SPV Module using Solar PVTR", International Journal of Creative Research Thoughts, Volume-6, Issue-1, pp. 148-153.
- 16. G. Suresh Babu, B. Prem Charan and A. Radha Krishna (2016) "Comparative Analysis of I-V and P-V Characteristics of a series and Parallel Connected SPV Modules" International Journal of Current Engineering and Scientific Research, Volume-3, Issue-8, pp.1-6.
- 17. G Suresh Babu, T. Murali Krishna and B.Vikram Reddy (2015) "A Comparative Analysis Of Cogging Torque Reduction In BLDC Motor Using Bifurcation And Slot Opening Variation", American Journal of Electrical Power and Energy Systems, Volume-4, Issue.(5-1), pp.9-12.
- G Suresh Babu and T. Murali Krishna (2015) "Feasibility of Hybrid Renewable System for Grid Free Remote Villages - A Case Study", International Journal of Electrical Engineering and Technology, Volume 6, Issue 9, pp.28-34.
- 19. G. Suresh Babu (2015) "Innovative Practices in Optimal Utilization of Solar Energy (Solar Tracking System)", International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering Volume-3, Issue 12, pp.166-170.
- G Suresh Babu and B. Ramu (2013) "Design and Testing of Three Phase Converter Applicable To Four Quadrant Operation", International Journal of Engineering Research and Application, Volume-3, Issue 2, pp. 711-716.
- G Suresh Babu, U K Choudary and G Tulasi Ram Das (2012) "A Novel Approach In Designing A Filter For Solid Rotor Alternator To Minimize Harmonics", International Journal of Electrical Engineering and Technology, Volume-3, Issue 2, pp. 328-342.
- 22. G Suresh Babu, U K Choudary, G Tulasi Ram Das and A Mahesh Kumar (2012) "An Economical Approach of Designing A Three Phase Bridge Tied Inverter For Solar Applications", International Journal of Electrical and Electronics & Telecommunications, Volume-1, No.1, pp. 30-42.
- 23. G Suresh Babu, U K Choudary and G Tulasi Ram Das (2010) "Analysis of Hardware Implementation of A Solid Rotor Alternator", International Journal of AER, Vol. 5, Issue 16, pp. 2891–2902.

International Conferences/ National Conferences:

- G Suresh Babu, G. Harikrishna, (2020) "optimal switching of domestic loads for Energy Conservation and power distribution reliability" All India Conference on: Load management in Electrical Power systems in INDIA, held during 18th-19th March 2020.
- 2. G. Suresh Babu, "A Novel Technique to Observe the Performance of Solar PV Module System", 4th International Conference on Innovations in Electrical and Electronics Engineering (ICIEEE-2019), held during 26th-27th, July, 2019.
- Sreekara Sarma, G. Suresh Babu (2018) "A Novel approach to Squaring Technique using Vedic Mathematics applied with EDSIMSI", 3rd International Conference on Vedic Mathematics, pp.72-77, ISBN 9781916124707
- G. Suresh Babu and P. Chow Reddy (2018) "Myths and Facts about the Inventions by ancient Scholars in Vedic Mathematics Arena", 3rd International Conference Vedic Mathematics, pp.144-150, ISBN 9781916124707
- G. V. Aparna, G. Suresh Babu and T. Murali Krishna (2018) "Simulation and Analysis of Single-Phase Full Bridge Diode Rectifier with Different Passive Power Factor Correction Techniques", IEEE International Conference on Recent Innovations in Electrical, Electronics & Communication Engineering, ICRIEECE-2018, pp. 2351-2355.
- 6. G. Suresh Babu, B. Prem Charan and A. Radha Krishna (2016) "Comparative Analysis of I-V and P-V

- Characteristics of a series and Parallel Connected SPV Modules" at International Conference on Instrumentation, Electrical and Electronics Engineering, pp.1-6,
- G Suresh Babu and N. Vasantha Gowri (2013) "A Novel bidirectional DC-DC converter Drive", IEEE International Conference on Smart Structures and Systems(ICSSS), at Saveetha Engineering College, Chennai, pp.19-23,
- 8. G. Suresh Babu (2012) "Novel Navigator-Bidirectional Converter- A Solution To HEV Systems", International Conference INDUCTICA, pp.1-6.
- G. Suresh Babu (2009), "Design of a Solid Rotor Alternator", International Conference Inductica-2009, pp.12-15
- G Suresh Babu (2019) "Performance Analysis of Solar PV Emulator Operated in Various Modes", National Conference on Evolutionary Computing Applications to Electrical Engineering, pp.85-89
- 11. G Suresh Babu and CBV Subbarayudu, (2015) "Vision Of A Renewable Telangana", National Conference on Role of Engineers in the Development of New State of Telangana, NC-REDNeST, pp.55.
- G Suresh Babu, P. C. Reddy and C. Harish, (2015) "Agricultural Infrastructure based Energy Resources", National Conference on Role of Engineers in the Development of New State of Telangana, NC-REDNeST, pp.55.
- 13. G Suresh Babu, C. Venkata Ratnam and D.Harsha, (2015) "Energy Needs Verses Environmental Concern", National Conference on Role of Engineers in the Development of New State of Telangana, NC-REDNeST, pp.56.
- G. Suresh Babu and G.N.R. Prasad (2015) "Applications of Soft Computing in Electrical Engineering-a Review", National Conference on Role of Engineers in the Development of New State of Telangana, NC-REDNeST, pp. 58.
- 15. Dr. G. Suresh Babu (2010), "Relavance of Vedic Mathematics in Electrical Engineering", Vedic Maths (Past, Present and Future), Siksha Sanskriti Utthan Nyas KMIT Hyderabad,
- G. Suresh Babu (2010), "Performance Evaluation of Solid Rotor Alternator With and Without Damper Windings", National Conference Special Electrical Machines and Systems-2010, BHEL R&D Corporate Hyderabad, pp.56-58
- 17. G. Suresh Babu (2009), "Reduction of Harmonics using Neuro Controlled Shunt Active Filter", Smart Power Grid, IE(I),AP State Center Hyderabad, pp.76-79
- G. Suresh Babu (2002), "Application of MOSFETs in AC Drives with PWM control technique using Microcontroller", Solid state Switching devices and application :Progress and Prospects, AP State Center Hyderabad, 14-16 pp..34-37