Bio Data

1	Name	JAYANAND B	
2	Designation	Professor	
3	Department	Electrical Engineering	
4	Contact No.	9447442427	
5	Email	jayanand@gectcr.ac.in jayanandb@gmail.com	

6	Academic Qualifications		
	B Tech	Electrical Engineering	Govt.Engineering College, Trichur,1987
	M.Tech	Energy Systems	IIT, Madras,1989
	Ph D	Electric Drives	IIT, Madras, 1998

7	Professional Experience		
	Period Served	Name of institution	Designation
	Jan1990 to Sept 1991	College of Engineering, Kannur	Lecturer/Asst Prof
	Sept 1991 to July 1994	Govt. Engg. College, Thrissur	Lecturer/Asst Prof
	July 1994 to July 1997	IIT, Madras	QIP
	July 1997 to Nov 1999	Govt. Engg. College, Thrissur	Lecturer/Asst Prof
	Nov 1999 to May 2000	Govt. Engineering College, Kannur	Associate Professor
	May 2000 to May 2003	Govt. Engg. College, Thrissur	Associate Professor
	May 2003 to July 2006	Govt. Engg College, Kozhikode	Associate Professor
	July 2006 to Feb 2012	Govt. Engg College, Thrisssur	Associate Professor
	Feb 2012 to July 2014	Govt. Engg College, Idukki	Professor
	July 2014 to till date	Govt. Engg College, Thrissur	Professor

8	Publications (List attached)	
	Journal	10 No.
	International Conference	31 No.
	National Conference	11 No.
9	No. of STTPs attended	10 Nos.
	STTPs coordinated	7 Nos
10	Membership in professional Bodies	IEEE, Industrial Electronics Society, Industry Applications Society, ISTE

11	No. of M.Tech. projects guiding/guided	Guided	Guiding
		21	2
	Ph D	2	8

12	Field of interest	Power Electronics , Drives
13	Additional Responsibilities	• PG Power Electronics Coordinator

		- Placement officer during 2006 to 2010 - Chairman, Board of Studies of Calicut University during 2006-2009 - Convener, Curriculum Committee of EE of KTU during 2015-2019

List of Publications of Jayanand B, Professor, Govt. Engineering College, Thrissur

a) Journal Papers:

1. *Jayanand B and Vedam Subrahmanyam, "Parameter Insensitive Vector Control of Current Source Inverter fed Induction Motor using Kalman Filter", International Journal of Power and Energy Systems, ISSN: 1078-3466,1998,Vol.8,No.2, pp 124-129.*

2. *Jayanand B and Vedam Subrahmanyam, "Sensorless Direct Vector Control of Induction Motor using Kalman filter trained Neuro Observer", International Journal of Engineering Intelligent Systems, ISSN: 0969-1170, Vol 9,2001, No 1, pp 57-64*

3. *A. Sivasubramanian and B. Jayanand, Application of Neural Network Structure in Voltage Vector Selection of Direct Torque Control Induction Motor, International Journal of Applied Engineering Research, ISSN 0973-4562 Volume 4 Number 6 (2009) pp. 903–912*

4. *A. Sivasubramanian and B. Jayanand , A Novel Switching Scheme for Torque Ripple Reduction in Direct Torque Control of Induction Motor, International Journal of Applied Engineering Research ISSN 0973-4562 Volume 4, Number 2 2009), pp. 287–293*

5. *Balachandran D P, Sreeramkumar R and Jayanand B, "Volt-second Balance Method of Inrush Current in single phase transformers", International Journal of Power System Operation and Energy Management, ISSN : 2231-4407, Vol-1, Issue3,2012*

6. *Anvin John and Jayanand B, "Speed and current observer for Induction Motor using Extended Kalman Filter, International Journal of Engineering Research and Technology, ISSN: 2278-0181, Vol 3, Issue7, July 2014.*

7. V Renukadevi, B Jayanand, M Sobha, A DC-DC converter-based infinite level inverter as DSTATCOM, International Transactions on Electrical Energy Systems 29 (2), e2724, 2019

8. K. T. Ajmal, K. Muhammedali Shafeeque, B. Jayanand, A Novel Four Switch Infinite Level Inverter, Journal of circuits, Systems and Computers, 2020

9. Uma syamkumar, B Jayanand, Real-Time Implementation of Sensorless Indirect Field-Oriented Control of Three-Phase Induction Motor using a Kalman smoothing based Observer, International Transactions on Electrical Energy Systems January 2020

10. N Sivarajan, S Nirmal, A Jasmin, B Jayanand - <u>Integration Of Solar PV Into Grid Using A New UPQC With Differential Inverter Control</u>, IET Generation, Transmission & Distribution Journal, 2020

Conference Papers:

1. Jayanand B and Vedam Subrahmanyam, "Robust Speed Identification of Vector Controlled Induction Motor using Real Time Recurrent Neural Network", International Conference on Control, Automation and Computer Vision, Singapore, 1996.
2. Jayanand B and Vedam Subrahmanyam, "Sensorless Control of Induction Motor using KF trained recurrent neural network", National Conference on Control of Transport Systems, Vidisha, 1997.
3. Jayanand B and Vedam Subrahmanyam, "Rotor resistance identification of Induction Motor drive system using neural network", International Conf. On Sensors and Instrumentation, Madras, 1998.
4. Jayanand B, "Energy Efficient Vector Control Induction Motors", Kerala Science Congress, 2000.
5. Jayanand B and Vedam Subrahmanyam , "Vector Control of Induction Motor using Modular Neural Network", International Conf. On Evolutionary Computing and Computer Applications in Power, January, 2000.
6. Jayanand B and Vedam Subrahmanyam, "Adaptive Resonance Theory II based Direct Torque Control of Induction Motors", International Conf. On Evolutionary Computing and Computer Applications in Power, January, 2000.
7. Sobha M, Ahammed Koya and Jayanand B, "Fuzzy based FACTS controller for Power System Stabilisation", National Systems Conference, Kharakpur, 2001.
8. Jayanand B, Ahammed Koya and Vedam Subrahmanyam, "Intelligent Direct Torque Control of Induction Motors", All India Jamia Electrical Engineering Conference, Auaust,2004.
9. Gopi M, Jayanand B and Ahammed Koya, "Classification of faults in Power System using voltage signature analysis", All India Jamia Electrical Engineering Conference, Auaust,2004.
10. Deepa K, Jayanand B and Ahammed Koya, "Object Oriented approach to Power System modeling and Simulation", All India Jamia Electrical Engineering Conference, Auaust,2004.
11. Jayanand B and Vedam Subrahmanyam, "Implementation of Direct Torque Control of Induction Motor using Kalman filter", National Conference on Power Semiconductor devices for Drives, IEE, Hyderabad, August, 2002.
12. Sobha M, Sreeramkumar R and Jayanand B, "Generalised Power System Stabilizer using Fuzzy Control", International Conference on Control, Robotics and Power, National University of Singapore, 2005.
13. C. Ismayil, M. Nandakumar, B. Jayanand, Selective Harmonic Elimination based SERD by means of Genetic Algorithm, National Conference on Recent Innovation In Technology 2009...March 26-28.. Organized by Rajiv Gandhi Institute of Technology, Govt. Engineering College, Kottayam
14. Balachandran D P, Sreeramkumar R and Jayanand B, "Instantaneous Current Based Detection of Inrush Current in single phase transformers", IEEE EnergyTech2012,

Cleveland, Ohio, USA, May 29- 31,2012.

15. *Jayanand B, SuharaE M, Neethu Michael Elizabeth, "DSP based Implementation of a Shunt Active Power Filter employingSynchronous Detection Method", DRDO sponsored Eighth Control Instrumentation Systems International Conference, CISCON-2011.*

16. *Jabir U A and Jayanand B, "*Fuzzy logic controller for maximum power point tracking with modified CUK converter in photovoltaic system" National Conference on Energy, Power Electronics and Control, EPEC'14, Idukki, 26-28 March 2014.

17. Josily Jose and Jayanand B, "Simulation and implementation of Luo converter", National Conference on Energy, Power Electronics and Control, EPEC'14, Idukki, 26-28 March 2014.

18. Preetha K.P. Jayanand B. Reji P., Power Quality Enhancement using Distributed Generation Inverters with Active Power Control, 2015 IEEE International Conference on Technological Advancements in Power & Energy.

19. Indu John and Jayanand B, "Voltage Control and Maximum Power Point Tracking of DFIG based Wind Power Generator, IEEE International Conference on Power Instrumentation, Control and Computing, 2015.

20. Farhat K P and Jayanand B, "Transformerless high step up cascade DC – DC converter with maximum Power Point Tracking, IEEE International Conference on Power Instrumentation, Control and Computing, 2015.

21. Ansudeen P and Jayanand B, "Negative to Positive Voltage Conversion Cuk Converter with high boost capability, IEEE International Conference on Power Instrumentation, Control and Computing, 2015.

22. Preetha K.P. Jayanand B. Reji P, "Performance comparison for Hysteresis and Resonant Current Controllers for a multifunctional Grid connected converter, IEEE International Conference on Power Instrumentation, Control and Computing, PICC 2015

23. Aiswarya V and Jayanand B, "Estimation and Control of a Sensorless Brushless DC Motor Drive using Extended Kalmam Filter, International Conference on Circuit, Power and Computing Technologies, ICCPCT-2016.

24. Chaithanya Vijayan and Jayanand B, "Reactive Power Compensation using Infinite Level Inverter based DSTATCOM, International Conference on Recent Trends in Engineering and Technology, ICoRTET-2016

25. Martin C, Chaithanya Vijayan and Jayanand B, "Three Phase Infinite Level Inverter", IEEE International Conference on Power Electronics, Intelligent Systems and Energy Systems, New Delhi, 2016

26. Martin C, Chaithanya Vijayan and Jayanand B, "Three Phase Infinite Level Inverter based Active Power Filter, IEEE, PEDES-2016.

27. Martin C, and Jayanand B, "Three Phase Infinite Level Inverter fed Induction Motor Drive, IEEE PEDES-2016.

28. Uma Syamkumar and Jayanand B, "A single stage smoothing filter for the speed estimation of Three Phase Induction Motor, IEEE Power India International Conference, 2016

29. Greshma Nath, Uma S and Jayanand B, "Sliding Mode Observer for Speed Sensorless Field Oriented Control of Induction Motor", IEEE Power India International Conference, 2016

30. Greshma Nath, Uma S and Jayanand B, "Sliding Mode Observer for vector controlled Induction Motor", International Conference on Next Generation Intelligent Systems(*ICNGIS*), 2016.

31. Josily Jose and B. Jayanand, "Simulation and Implementation of a Superlift Luo Converter", International Conference on Renewable Energy and Sustainable Energy (ICRESE), 2013

32. Surya Susan Alex, Asha and Jayanand B, "Reduced Order Extended Kalman Filter for State Estimation of BLDC Motors",IEEE International Symposium on Embedded Computing and System Design , IIT, Patna, 2016

33. Smrithi K, Sharun Vittappan and Jayanand B," A Novel Converter Topology Based STATCOM For Reactive Power Compensation", Asian Conference on Energy, Power and Transportation Electrification, ACEPT 2017, Singapore.

34 Hareesh A, Manisankar B. and Jayanand B, "A Novel Three Phase Infinite Level Inverter (TILI) Topology for Induction Motor Drive Application", Asian Conference on Energy, Power and Transportation Electrification, ACEPT 2017, Singapore.

35. S Nirmal, KN Sivarajan, EA Jasmin, M Nandakumar, B Jayanand, Steady state error elimination and harmonic compensation using proportional resonant current controller in grid-tied DC microgrids, 2018 International Conference on Power, Instrumentation, Control and Computing (PICC), 2018.

36. K Smrithi, Sharun Vittappan, B Jayanand, A novel converter topology based STATCOM for reactive power compensation, 2017 Asian Conference on Energy, Power and Transportation Electrification (ACEPT), Singapore,

37. S Nirmal, KN Sivarajan, EA Jasmin, M Nandakumar, B Jayanand, Modified current control technique for grid synchronization in voltage source converters, 2017 IEEE PES Asia-Pacific Power and Energy Engineering Conference (APPEEC)

38. Uma Syamkumar, B Jayanand, A reduced order smoothing filter for speed estimation of three phase induction motor, TENCON 2017-2017 IEEE Region 10 Conference

39. A Hareesh, B Manisankar, B Jayanand, A novel three phase infinite level inverter (TILI) topology for induction motor drive application, 2017 Asian Conference on Energy, Power and Transportation Electrification (ACEPT)

40. PS Athira, V Renukadevi, B Jayanand, Infinite level inverter based DSTATCOM for power quality enhancement, 2017 International Conference On Smart Technologies For Smart Nation (SmartTechCon)

41, Reshma K, Aiswarya N P, B Jayanand, Infinite level Inverter based Dynamic voltage restorer for Mitigation of Voltage Sag and swell, IEEE International Conference on TENCON,2019

42. Neethu Elizebeth Michael, Dr. Suhara E. M., B Jayanand, Experimental Verification of Shunt Active Power Filter for Harmonic Elimination, International Conference on Modelling, Simulation & Intelligent Computing, January 2020

43. Ajmal K T, Jayanand B, "A Modified Three Phase Infinite Level Inverter with Improved DC Bus Utilization, 5th International Conference on Communication and Electronic Systems, ICCES2020)