Curriculum Vitae

1. Name : **JITENDRA NATH BERA**

2. **Designation** : Professor, Electrical Engineering

3. **Affiliation** : Department of Applied Physics,
University of Calcutta, Kolkata, India

4. Areas of Research:

Smart Grid, Micro gird, Embedded System, Smart Grid Wireless Communication, Power Electronics Converters and Drives

5. **Research Group**: Power System Research Group

Contributors:
1) Dr. Amitava Biswas, Assoc. Prof. Applied Physics
2) Dr. Binoy Kumar Karmakar, Asst. Professor, Applied
3) Prof. Samarjit Sengupta, Former Prof. Applied Physics
4) Prof. Gautam Sarkar, Former Prof. Applied Physics

6. Sponsored Project

Sl. No	Project Title	Sponsoring Agency	Role	Period
1.	Remote Communication System in i) Smart Grid Development and ii) Remote Health Care (in DRS-II)	UGC	Coordinator	2015-20
2.	Development of Remote Monitoring, Analysis And Control of Electrical Machines and Power System Using Smart Wireless Communication Technology (in DRS-I)	UGC	Dy. Coordinator	2009-14
3.	Development of Remote Energy Metering System towards the Estimation of Zonal Energy Consumption with AMR	CPRI, MOP	PI	2011-13
4.	FIST Program 2009	DST	Dy. Coordinator	2010-15
5.	Indigenous health monitoring system	DST, WB	Co-PI	2016-19
6.	Development of energy efficient intelligent building architecture based on user activity	DST WB	Co-PI	2018-21

7. Patent/Copy right/Technology Transfer

Sl. No.	Title	Patent No with date	
1	A novel Microcontroller based power measuring apparatus	Patent No.1117/KOL/2013 filed on 30.09.2013	Prof. J.N.Bera & Prof. G. Sarkar
2	A prototype of In-Home-Display (IHD)	Transfer of Technology in 2013	MOU signed with CEO, Landis+Gyr.
3	Development of Remote Energy Metering System towards the estimation of Zonal Energy Consumption with AMR	Patent file no. 967/KOL/2015 dated 09/09/2015	Prof. J.N.Bera, Dr. S. Chowdhuri with J. Sundara Rajan, CPRI Bangalore
4	Development of remote energy metering system for the determination of zonal energy consumption with AMR and theoretical consideration therefor	Copyright No. L-60862/2014 filed on 26.12.2014	Prof. J.N.Bera & Prof. G. Sarkar

8. Consultancy works

Sl. no.	Project Name	Industry Name	Year	Status
1.	Chopper based Battery Discharge Unit	Indian Railway & M/S Hilton Pvt.Ltb	2018	Completed
2.	Radio Remote Controlled Emergency Shutdown System	M/s Real Time System, Kolkata- 75	2015	Completed
3.	Fuse Blown Indicator with GSM messaging system in Indian Railway	M/S Electrostar, Kolkata	2013	Completed
4.	In Home Display using 2.4 GHz Zigbee communication	M/S Landis + Gyr, Kolkata (Though MOU with CU)	2013	Completed
5.	Rolling Display with Bengali and English font	Malancha Butique at Tripura	2013	Completed
6.	Design and Development of Train Speed measurement unit and relay test bed	Indian Railway & M/S Hilton Pvt.Ltb	2009	Completed
7.	Design and development of Head code Display	Indian Railway & M/S Hilton Pvt.Ltb	2008	Completed
8.	Design and Performance Study of Radio frequency filters upto 3 GHz to be used for lightning arrester.	Indian Railway & Hilton Pvt.Ltb	2007	Completed
9.	Design, Development and Implementation of Multimedia Laser Show System with Musical Fountain at Vietnum	M/S Premier Irrigation Equipment Ltd.	2006	Completed (installed at Vietnum)

10.	Design and Development of LED based Head light Indicator	Indian Railway and M/S M B Company	2006	Completed

9. Ph. D Guidance: Awarded/Submitted: 6; Registered: 5; Enrolled: 1

A. Awarded / Submitted			
Sl. No	Name with affiliation	Thesis Title	Status
1.	Dr. Rajarshi Gupta, Professor, Department of AppliedPhysics, CU	An approach to develop a method of automated remote monitoring and analysis of ECG using a smart wireless telecardiology system	Awarded 2012
2	Dr. Ms Jinia Das, Principal, Camellia Institute of Engineering & Technology, West Bengal -713403.	Development of PC based Remote Multi-Machine Monitoring System towards Preventive Maintenance Facility.	Awarded 2015
3	Dr. Aveek Chattopadhyay, Assistant Professor, SKFGIE, Kolkata	Current Signature Analysis Based Electrical Fault Assessment	Awarded 2017
4	Ms. Rumpa Saha, Asst. Prof. EE Department, Alia University, Kolkata	Power Quality Analysis and Characterization of Electrical Appliances by Sample Shifting Technique	Awarded 2019
5	Ms. Ayindrila Roy, Asst. Prof. Techno India college, Rajarhat, MAKAUT	On line Load Flow Analysis and State Evaluation towards Smart Grid Monitoring and Control	Submitted
6	Sri Surya Sarathi Das, Asst. Prof. EE Dept. Kalyani Govt. Engg. College , MAKAUT	Cyber Resilient Image Transmission Technique Employing Improved Visual Secret Sharing Schemes	Submitted
B. Registered			
1.	Ms. Sananda Pal, SRF, DST Inspire Fellow	Reconfiguration of Electrical Networktowards Development of Economic, Reliable Smart Power System	
2.	Ms. Pritha Roy, SRF, RGNF, UGC	Remote Monitoring and PerformanceAnalysis of Micro Grid Under Different Operating Conditions.	
3.	Ms Tista Banerjee, SRF	Intelligent Controller for InductionMotor Drive	
4.	Sri Sudeep Samanta, Asst. Prof., MCKV, Howrah, MAKAUT	Development of intelligent fault diagnosis system for remote condition monitoring of electric machines	

5.	Sri Samiul Alam	Photoplethysmogram Instrumentation and Data Archiving for Personal Healthcare
6.	Sri Rakesh Das, DRF, Applied Physics, CU	Development of Smart Grid Neighborhood Area Network for Advanced Metering Infrastructure Implementation

10. Employment details :

Employer's Name	Post Held	Duration	
		From	To
University of Calcutta	**Professor** in Department of Applied Physics	1.11.2012	Continuing
University of Calcutta	**Associate Professor** in Department of Applied Physics	18.10.05	31.10.2012
Premier Irrigation Equipment Limited	AGM (Electronics Division)	15.05.96	17.10.05
ADA (Aeronautical Development Agency)	Sc-B	02.01.95	14.05.96

11. Teaching Experience :

Institution	University	Designation	Designation Joining date	Leaving date	Curriculum level
Department of Applied Physics	Calcutta University	Professor	01.11.12	Continuing	Ph.D., M.Tech., B.Tech.
Department of Applied Physics	Calcutta University	Associate Professor	18.10.05	31.10.12	Ph.D., M.Tech., B.Tech.
Department of Applied Physics	Calcutta University	Part time Lecturer	02.05.05	17.10.05	M.Tech.(Eve),
College of Ceramic Technology	Calcutta University	Part time Lecturer	22.01.96	30.06.97	B.E.

12. Professional Experience of Previous Work:

i) Achievements while worked as AGM

Worked as **'AGM - Electronics Division'** at **M**/S Premier Irrigation Equipment Ltd. in its R & D section of   Fountain Department. **T**he following items have been **designed** and

developed by myself during my stay of almost 10 years which are running well in some National and International applications:

a. Micro controller (mcs51 family) based decoder units for **Full Duplex** Serial data communication with PC in asynchronous mode.
b. PC based 8-bit **digital** and **analog I/O** interfacing card to be fitted in the **ISA** expansion slot
c. Some digital **multiplexers** and **demultiplexers / Decoder** to provide a high speed serial communication among them using some state-of-the-art protocol as well as some standard **DMX512 protocol** having provisions of PC interfacing.
d. Analog storage of serial streamed digital data into a tape cassette using tape deck and its retrieval with the help of state-of-the-art PC based **data acquisition card** as well as **EPROM based** and **Micro controller based Transceiver card**.
e. **Micro controller** (mcs51 family) based as well as **EPROM** based **programmable Timer** to produce several types of programmable sequencers, rolling displays, programmable dimmers etc.
f. Utilization of Power Electronics Devices (viz. Triac, Thyristor, Power MOSFET etc.) to control ac output voltage using **PWM technique**.
g. Some Audio **Frequency Filtered cards** (band pass) to produce some rhythmic effects along with the music.

ii) Software based project works

The following Multimedia based software have been designed and developed using C/C++, VB and VC++

a) Project-1
Project Title: Audio Playback (from WAVE File) based integrated monitoring and control system.
Operating System: DOS
Purpose: To have some digital output from pre-recorded data files in the Hard Disc through a digital interface card in synchronization with the music.
Utilities: Object Oriented Programming (OOP) methods, BIOS resources, Mouse driver and graphics method have been utilized using **C/ C++**
Work: A fully GUI based user friendly menu driven "Play, Pause/Continue, Stop, Forward & Rewind" featured audio driver has been developed. This also includes the handling of music respective data files to produce the output in sync. with the music. Graphical representation of the wave file in time domain (as a CRO Display) as well as data to simulate the actual happenings in scrolling fashion. The driver routine of the Interfacing card handles the data.

b) Project-2
Project Title: Multimedia based integrated monitoring and control system.
Operating System: Windows
Purpose: To have some digital and/or analog output through an AnaDigi (analogue-digital) interface card in synchronization with the **music** as well as with the **Video**.
Utilities: Object Oriented Programming (OOP) methods, Win32 API, ActiveX and state-of-the-art DLL resources have been utilized using **VC++ / VB** as the programming studio.

Work: This is an upgrade of the above DOS based work to make it device independent software. Keeping all DOS features intact this is extended for true multimedia playback (viz. MP3, Video films) system, visual display & editing of the incoming analogue as well as outgoing signal etc. purposes.

c) Project-3
Project Title: PC based Application Specific Integrated Multiplexer/Demultiplexer.
Operating System: Windows
Purpose: To build communication link with some International standard equipment through a remote PC and their control with the same PC.
Utilities: PC's RS232 (serial) port, Parallel port
Work: Full duplex asynchronous data communication using COM port for software based encoding and decoding of data, various kinds of interlocking systems and functional control of some standard products viz. Laser Disk Player, Intelligent Light Unit etc.

d) Project -4
Development of a Compiler to interpret some text file into binary data files following some predefined Header files.

e) Project -5
MDI (multi document interface) based **In Circuit Emulation** software using COM port has also been developed under Windows environment.

iii) Achievements while worked as Scientist-B

a. Worked as scientist 'B' in the project entitled "Millimeter Wave Scattering" sponsored by Aeronautical Development Agency (ADA), Govt of India, at the Institute of Radiophysics & Electronics, University of Calcutta.
b. Also worked in the project entitled "Computer Data Communication using Radio Modem" sponsored by Tata Iron and Steel Co. (TISCO).
c. Also worked in the project entitled "Computer Data Communication using Infra-red" sponsored by TISCO.
d. Also worked in the project entitled "Collision Avoidance using Infra-red" sponsored by TISCO.

Personal Information:

13. **Father's Name**   : Late Gostha Behari Bera
14. a) Address for Correspondence :
 Department of Applied Physics, University of Calcutta, 92 APC Road, Kolkata 700009, Kolkata, India

b) **Contact No.**   : 6290602237
c) **Email Address**   : jnbaphy@caluniv.ac.in

15.   Professional Qualification

Name of Exam.	Year of passing	University	%of marks secured	class	Specilisation
B.Sc. (Phys. Hons)	1990	Calcutta University	60.8	1st class	
B. Tech.	1993	in Applied Physics, C.U.	78.2	1st class	in Electrical Machines & Power System
M. Tech.	1995	- Do -	82.1	1st class	-Do-
Ph. D.	Awarded on May 2005	Jadavpur University	in Multimedia wireless communication at Multi wavelengths pertaining to Information Technology		

16. Member of Professional Bodies:
a) Member, PES and CSS, IEEE
b) Member, IET

17. Publication: Journal – 31, Conference - 67

List of Publication

Journal
1. S. Pal, S. Sen, J. N. Bera, S. Sengupta, "Regenerative and Combinatorial Random Variable based Particle Swarm Optimization towards Optimal Transmission Switching", Applied Soft Computing Journal, Elsevier, vol. 95, October, 2020. https://doi.org/10.1016/j.asoc.2020.106529
2. Ayindrila Roy, Jitendra Nath Bera and Gautam Sarkar, "Real Time Stability Analysis with Distributed Generation in Multifed RDN using PMU and Feed Forward Technique", (Accepted for publication ino *Electric Power Components and Systems, Taylor and Francis*), 2020. DOI: 10.1080/15325008.2020.1829189
3. UjjalSur, Amitava Biswas, Jitendra Nath Bera, Gautam Sarkar, "A Holomorphic Embedding Method Based Hybrid AC-DC Microgrid Load Flow in Electric Power System Research", Electric Power Systems Research, Elsevier, Volume 182, May 2020, https://doi.org/10.1016/j.epsr.2020.106267
4. S. Pal, S. Sen, J. N. Bera, S. Sengupta, "A Smart Bi-objective Two-Stage Algorithm for Optimal Transmission Switching without Islanding", Sadhana- Academy Proceedings in Engineering Sciences, Springer, vol. 45(1), Springer, 2020. https://doi.org/10.1007/s12046-020-01327-z
5. Ayindrila Roy, Jitendra Nath Bera and Gautam Sarkar, "An Efficient Real Time State Evaluation and Observability Analysis for Condition Monitoring of Multifed Radial Distribution Network", (communicated to Ain Shams Engineering Journal (Elsevier)), 2020
6. Tista Banerjee, Suman Chowdhuri, Jitendra Nath Bera, "BPANN Algorithm Based Online Equivalent Parameter Estimation of Induction Motor Drive", communicated to IETE Journal of Research (Taylor & Francis), 2020
7. Rumpa Saha, Jitendranath Bera, Gautam Sarkar, "R. Saha, J. N. Bera and G. Sarkar "An improved method for load taxonomy using sample shifting technique and signature analysis" Electric Power Components and Systems, Taylor and Francis, March, 2019.
8. Rumpa Saha, Jitendranath Bera, Gautam Sarkar, "An Alternate Approach for Power Quality Computation Using Sample Shifting Technique towards Load Characterization" Measurement (Elsevier), Volume 129, December 2018, Pages 642-652, 2018.

9. P. Roy, J. N. Bera, G. Sarkar, S. Chowdhuri, **"Performance Evaluation and Filter Design Aspects of Single-Phase Inverter under Different Loading Conditions",** IETE Journal of Research (Taylor & Francis), Vol. No. pp, 2018, DOI: 10.1080/03772063.2018.1466734

10. Pritha Roy, J. N. Bera, G. Sarkar, S. Chowdhuri, "A Study on Filter Design Aspects of Single-Phase Inverter with Various Modulation Schemes", Proceeding of the Second International Conference on Microelectronics, Computing & Communication Systems (MCCS 2017), pp 17-24.

11. S. Samanta, R. Mondal, J. N. Bera, G. Sarkar, " RTDS based fault diagnosis of induction machine using Sample Shifting Technique", C+CA: Progress In Engineering And Science ,Vol. 42, No. 1, pp. 192- 195, 2017, ISSN: 0045-6152

12. S. Samanta, S. Ghosh, S. Hatui, G. Sarkar, "Performance analysis of AG voltage regulator under static load using phase angle control", C+CA: Progress In Engineering And Science (Vol. 42, No. 2, pp. 561- 565, 2017, ISSN: 0045-6152

13. S. S. Das, K. Das Sharma, J.K.Chandra, J.N.Bera, "Quantum Signal Processing Based Visual Secret Sharing Methodology with Unexpanded Shares" Journal of Electronic Imaging, Vol 24, No.5, Oct 2015, pp-

14. J. Datta(Das), S. Chowdhuri and J. N. Bera, "Channel Efficiency with Security Enhancement for Remote Condition Monitoring of Multi Machine System Using Hybrid Huffman Coding", Journal of The Institution of Engineers (India): Series B, Volume 2, Issue 6, July 2015, pp 1-12

15. R. Saha, J.N.Bera, G. Sarkar, S. Chowdhuri, A. Deb, "A Simplified State-of-the-art Sample Shifting Technique for Microcontroller based Single Phase Power Measurement", Measurement (Elsevier),Vol. 58, Dec. 2014, pp 459–467.

16. A. Roy, J.N.Bera and G.Sarkar, "Wireless sensing of substation parameters for remote monitoring and analysis", Ain Shams Engineering Journal(Elsevier), Vol. August, 2014, pp

17. S. Roychoudhury, A. Deb, G. Sarkar. J.N.Bera, "Virtual Laboratory for Performing Tests on a Single-Phase Power Transformer, IETE Journal of Education, vol 55, no. 1, JAN_JUN 2014, pp 11-25.

18. A. Roy, J.N.Bera and G.Sarkar, "A State-of-the-Art PMU and MATLAB based GUI Development towards Power System State Estimation on Real Time Basis", International Journal of Electrical, Electronics and Computer Engineering with ISSN No. (Online) : 2277 -2626, Volume 1, Issue 2, pp 40-45 , 2012. Special Edition for Best Papers of Michael Faraday IET India Summit -2012, MFIIS -12.

19. Rajarshi Gupta, Jitendra Nath Bera, and Madhuchhanda Mitra, "A Bi-Phase Enabled Serial Acquisition System for Remote Processing of Digitized ECG", Computers and Electrical Engineering (Elsevier), Vol.38, 2012, pp.68-74.

20. Jinia Datta(Das), Soumyajit Datta, Sumana Chowdhuri and Jitendranath Bera, "Condition based reporting of multi-machine monitoring system using GSM", International Journal of Scientific and Research Publications, Volume 2, Issue 6, June 2012, pp 1-5.

21. Tista Banerjee, Sumana Chowdhuri, Gautam Sarkar, Jitendranath Bera, "Performance Comparison between GA and PSO for Optimization of PI and PID controller of Direct FOC Induction Motor Drive" International Journal of Scientific and Research Publications, Volume 2, Issue 7, July 2012, pp 1-5.

22. J.N.Bera, G. Sarkar, R. Rudra, "A Novel Sample Shifting Technique for Sinusoidal Steady State Solution of R-L-C Circuit", Journal of Electric Engineering, Volume 12, Issue 2, June 2012 pp. 217-225.

23. R.Gupta, J.N.Bera, M.Mitra, "An intelligent telecardiology system for offline wireless transmission and remote analysis of ECG", Journal of Medical Engineering & Technology (Informa Healthcare), November 2012, pp 1-8.

24. M.Mitra, J.N.Bera, R.Gupta, "ECG compression technique for GSM based offline telecardiology application for rural clinics in India", IET Science, Measurement & Technology, 2012, pp 1-8.

25. J. Datta (Das), S. Chowdhuri, J.N.Bera, G. Sarkar, "Remote monitoring of different electrical parameters of multi-machine system using PC", Measurement, Elsevier Science Publication, Vol 45, September 2011, pp 118–125.

26. A. Maiti, S. Chowdhuri, J.N.Bera, "Development of Microcontroller Based ISPWM Switching Technique for Single Phase Inverter", International Journal of Engineering Science and Technology (IJEST), Vol. 3 No. 6, June 2011, pp 5298-5305.

27. R.Gupta, J.N.Bera and M.Mitra, "Development of an Embedded System and MATLAB-based GUI for online Acquisition and Analysis of ECG Signal", Measurement (Elsevier), vol. 43, No.9, November 2010, pp.1119-1126.

28. R.Gupta, M.Mitra, J.N.Bera, "Remote ECG Acquisition: Towards distributed Healthcare", International Journal of Recent Trends in Engineering and Technology (Academy Publishers, Finland), Vol. 4, No. 1, November 2010, pp. 24-28.

29. S. Mitra, J. Bera, M. Mitra, S. Sengupta, B. B. Chaudhuri "Wireless Communication Based Portable Telecardiology System for Rural health Care" IETE Technical Review, Vol. 23, No. 5, Sept. – Oct., 2006, Pp. 277-282.

30. R. Bera, Sanjib Sil ; H. Sarkar, J.Bera, "Test and measurement on a 60 GHz Line of Sight (LOS) Communication Link", IETE Technical Review, Vol 20, No 5, September-October 2003, pp 425-431.

31. J. Bera et.all, "Observation of microwave radio sun during total solar eclipse on October 24, 1995 by Eastern Centre for Research in Astrophysics (ECRA)", the Indian Journal of Physics, vol 70B, no 3,169-173,1996.

Seminar / Conference

1. Sumangal Bhaumik, Abhijit Mandal, Jitendra Nath Bera,"Harmonic Analysis in Solar Penetrated On/Off grid Microgrid using ETAP" accepted in Michael Faraday IET International Summit (MFIIS 2020), October 3-4, 2020, Kolkata

2. R. Das, J. N. Bera, "Development of NAN for Energy Monitoring System using ZIGBEE", IEEE Region Ten Symposium (TENSYMP), June 7-9, 2019, Kolkata, Page no:687-692, ISBN: 978-1-7281-0296-2, Part No: CFP19TEO-CDR, Available in **IEEE Xplore**

3. Prasant Choudhary, Jitendra Nath Bera, "SMS Based Load Flow Monitoring and Analysis for Theft Location Detection in Rural Distribution Systems" accepted in IEEE Calcutta Conference (CALCON) 2020, to be held on Februay 28-29, 2020, Kolkata

4. Ankit Roy Ghatak, Jitendra Nath Bera, "Coordinated V-f and D-Q controls of converters towards Black-Start of MicroGrid", International Seminar Cum Research Colloquium on MEMS based Sensors and Smart Nanostructured Devices (MSSDN) in December 27, 2019, Kolkata

5. S. Pal, S. Sen, J. N. Bera, S. Sengupta, "Network Modeling using Optimal Transmission Switching", in Proc. of IEEE Calcutta Conference: CALCON 2017, pp. 321-324 , Kolkata, India, December 2-3, 2017. ISBN :978-1-5386-3744-9. Available in **IEEE Xplore.**

6. S. Pal, J. N. Bera and S. Sengupta, "Loss Minimization of Power Network by Reconfiguration using GA and BPSO", Computer, Communication and Electrical Technology: Proceedings of First International Conference on Advancement of Computer Communication & Electrical Technology (ACCET 2016), published by CRC press/ Balkema, Taylor & Francis Group, pp. 199-202, 2017. ISBN 978-1-138-03157-9

7. Sumangal Bhaumik, Banibrata Mondal, Jitendra Nath Bera, "Low-Voltage Hardware-in-Loop Test Model Using Real-Time Digital Simulator for Single-Phase Converter", Advances in Communication, Devices and Networking, Springer Pub, 2019, Proceedings of International Conference in Communication, Devices and Networking (ICCDN 2018), June 02, 2018

8. Tista Banerjee, Jitendra Nath Bera, "Indirect Field Oriented Control for Three Phase Induction Motor Drive using DSP Controller", Advances in Communication, Devices and Networking, Springer Pub, 2019, Proceedings of International Conference in Communication, Devices and Networking (ICCDN 2018), June 02, 2018

9. Trishala Pal Choudhuri, Sumit Kumar Mondal, J.N.Bera, "Development Of Load Management Scheme To Participate In Demand Side Integration", International PES Conference on APPEEC 2017), pp -2017

10. S. Samanta, J. N. Bera, G. Sarkar, Severity and location detection of Three Phase Induction Motor stator fault using Sample Shifting Technique and Adaptive Neuro Fuzzy Inference System, Proc. of MS-17, India, Nov 4-5, 2017

11. S. Samanta, R. Mondal, J. N. Bera, G. Sarkar, " RTDS based fault diagnosis of induction machine using Sample Shifting Technique", ICAST 2017, pp. 165-170, 17- 19th March, 2017.

12. S. Samanta, P. Seal, J. N. Bera, "Health monitoring of single phase induction motor using Fuzzy logic scheme", ICAST 2017, pp. 221-224, 17- 19th March, 2017.

13. S. Samanta, S. Ghosh, S. Hatui, G. Sarkar, "Performance analysis of AG voltage regulator under static load using phase angle control", ICAST 2017, pp. 115-119, 17- 19th March, 2017.

14. A. Roy, J.N.Bera, G. Sarkar, "Hybrid Huffman Coding Scheme for Efficient and Secured Condition Monitoring of a Substation", International Conference on Control, Instrumentation, Energy & Communication(CIEC16), 2016, **ISBN:** 978-1-5090-0035-7 (IEEE Xplore digital library, Pages: 461 - 465)

15. A. Roy, J.N.Bera, G. Sarkar, "State Estimation of Radial Distribution Network Using a PMU and Sample Shifting Technique", International Conference on Control, Instrumentation, Energy & Communication(CIEC16), 2016, **ISBN:** 978-1-5090-0035-7 (IEEE Xplore digital library, Pages: 269 - 273)

16. J. Datta, J.N.Bera, S. Chowdhuri, "Development of Remote Monitoring Analysis and Reporting System for Industrial Machines", International Conference on Control, Instrumentation, Energy & Communication(CIEC16), 2016, **ISBN:** 978-1-5090-0035-7 (IEEE Xplore digital library, Pages: 466 - 470)

17. P. Roy, S. Chowdhuri, J.N.Bera, G. Sarkar, "Synchronization Aspects of Single Phase SPWM Inverters for Microgrid Mode of Operation", International Conference on Control, Instrumentation, Energy & Communication(CIEC16), 2016, **ISBN:** 978-1-5090-0035-7 (IEEE Xplore digital library, Pages: 427 - 431)

18. S. Samanta, J.N.Bera, G. Sarkar, "KNN Based Fault Diagnosis System for Induction Motor", International Conference on Control, Instrumentation, Energy & Communication(CIEC16), 2016, **ISBN:** 978-1-5090-0035-7 (IEEE Xplore digital library, Pages: 304 - 308)

19. S. Samanta, J. N. Bera, G. Sarkar, "Inter turn fault diagnosis of three phase induction motor using SST and KNN", published in IEEE Explore Digital Library, pp.-267-272, Michael Faraday IET International Summit 2015, 12th September- 13th September, 2015.

20. A. Mahata, B. Mondal , J.N.Bera, S. Chowdhuri, "A Low Cost Industrial Fuse Changeover System with GSM Based Auto Annunciation", International Conference on Control, Instrumentation, Energy & Communication(CIEC14), 2014, pp.747-751 (IEEE Xplore digital library).

21. B. Mondal, A. Mahata, S. Chowdhuri, J.N.Bera, G.Sarkar, "Remote Monitoring of Energy Consumption using Zigbee and GSM Networking", International Conference on Control, Instrumentation, Energy & Communication(CIEC14),2014,pp. 529-532.

22. A. Roy, J.N.Bera, G. Sarkar, "Longevity Enhancement Analysis by Evaluation of Battery Life in Wireless Sensing Network", International Conference on Control, Instrumentation, Energy & Communication(CIEC14), 2014, pp 524 – 528.

23. J. Datta(Das), J.N.Bera, S. Chowdhuri, "A Novel Hybrid Huffman Coding Compression Technique for Secured Condition Monitoring of Induction Machine", International Conference on Control, Instrumentation, Energy & Communication(CIEC14), 2014, pp- 467 – 471.

24. R. Saha, J.N.Bera, G. Sarkar, "Remote Monitoring for Power Quality Analysis of Distribution System", International Conference on Control, Instrumentation, Energy & Communication(CIEC14), 2014, pp 402 – 406.

25. S. Samanta, J.N.Bera, G. Sarkar, "An approach for power system fault diagnosis using current samples towards smart grid operations", International Conference on Control, Instrumentation, Energy & Communication(CIEC14), 2014, pp 743 – 746.

26. R. Saha , G Sarkar, J.N.Bera, S.Chowdhuri, A.Deb, "Sample Shifting Technique (SST) for Estimation of Harmonic Power in Polluted Environment", presented in International Conference on Circuits, Power and Computing Technologies (ICCPCT 2013), March 18-20 2013, rewarded as conference's best paper

27. R. Gupta, J. N. Bera, "A framework for cardiac patient monitoring using an intelligent wireless system for rural healthcare in India", First International Conference on Intelligent Infrastructure Calcutta, India December 1-2, 2012, pp.274-279[ISBN: 978-1-4577-1386-611©2011 IEEE]

28. J.N.Bera, "Zigbee Based Wireless Sensing of Zonal Electrical Parameters Using State-of-the-art Metering System towards Smart grid Management", First International Conference on Intelligent Infrastructure Calcutta, India December 1-2, 2012, , 2012, pp.274-279[ISBN: 978-1-4577-1386-611©2011 IEEE]

29. A.Roy, J.N.Bera and G.Sarkar, "A State-of-the-Art PMU and MATLAB based GUI Development towards Power System State Estimation on Real Time Basis", rewarded as session's best paper, IET Michael Faraday, November 18-20, 2012

30. J. Datta (Das), S. Datta, S. Chowdhuri, J. N. Bera, "GSM based Condition Reporting System for Power Station Equipments", EAIT, 2012

31. J.N.Bera, "Zigbee Enabled Wireless Sensing of Electrical Machine Parameters Using State-of-the-art Measurement System towards CBM", International Conference on RADAR, Communication and Computing, India, December 20-22, 2012

32. A.Roy, J.N.Bera and G.Sarkar, "A State-of-the-art PMU based Monitoring System with Intelligent Electronic Device using Microcontroller", International Conference on Power and Energy, NERIST, December 28-29, 2012

33. R. Saha, J. N. Bera, and G. Sarkar, "A PLL and Sample Shifting Technique based Reactive Power Measurement System", Presented in International Conference on Communication and Industrial Application (ICCIA), 2011, pp1-4

34. J. N. Bera, R. Saha, and N. Bhowmik(Pal), "Active and Reactive Power Measurement Using Microcontroller Based System" Proc. of the conf. on Instrumentation & Control (NATCONIC-2011) ,January 2011

35. S. Datta, J.N.Bera, S. Chowdhuri, " Zigbee Based Centralised Controller for Home Appliances" Presented in National Conference on ELECTRICAL, ELECTRONICS AND COMPUTER ENGINEERING, 2011

36. H. K. Chatterjee, R. Gupta, J. N. Bera and M. Mitra, "An FPGA implementation of real-time QRS detection algorithm": IEEE 2nd International conference on Computer and Communication Technology (ICCCT), India, Sept 15-17, 2011, NIT Allahabad, India, pp.274-279[ISBN: 978-1-4577-1386-611©2011 IEEE].

37. R.Gupta, M.Mitra, J.N.Bera, "Time Plane feature Extraction from Digitized ECG using D-ECG Approach", International conference on Biomedical Engineering and Assistive Technologies (BEATS 2010) at NIT Jalandhar, India 17-19 December 2010, pp.47

38. Rajarshi Gupta, Madhuchhanda Mitra, Jitendranath Bera "Automated Acquisition and Time-plane Analysis of ECG Signal Using a MATLAB-based GUI coupled with an Embedded System":, 2nd. IEEE International Conference on Intelligent Human Computer Interaction (IHCI 2010), IIIT Allahabad, UP, India during Jan15-19, 2010, pp.255-260.

39. S Chowdhuri, Jitendranath Bera, Abhisek Maity,Tista Banerjee, "Existing harmonic filter technologies and Study of Harmonic Current Filter for Single Phase Non-linear Load", presented in 34th National System Conference(NSC-10), 10-12th December, NITK Suratkal, 2010, pp 201-203.

40. Abhisek Maity, Sumana chowdhuri, Jitendranath Bera, Tista Banerjee, "Microcontroller based single phase inverter with remote control facility", conference proceedings, in International IEEE Conference on power Electronics and Drives (PEDES 2010) (New Delhi), 2010, pp 214-217.

41. Tista Banerjee, Abhisek Maity, Sumana chowdhuri, Jitendranath Bera, "Off-Line Optimisation of PI and PID Controller for Vector Controlled Induction Motor Drive using particle Swarm Optimisation", conference proceedings, in International IEEE Conference on Electrical and Computer engineering (ICECE 2010) (Dhaka,Bangladesh) , 2010, pp 74-77.

42. Tista Banerjee, Jinia Datta, Sumana chowdhuri, Jitendranath Bera, "Off-Line Optimisation of PI and PID Controller for Vector Controlled Induction Motor Drive using genetic Algorithm", conference proceedings, in International IEEE Conference on Electrical Power and Energy systems (ICEPES 2010) (NIT, bhopal), 2010, pp 251-254.

43. R.Gupta, M.Mitra, J.N.Bera, "Development of an ECG DAS for storing, processing and analysis using MATLAB-based GUI and microcontroller": International Conference on Advances in Computing, Control & Telecommunication Technologies (ACT 2009) at Trivandrum, Kerala, India Dec 28-29, 2009, pp.570-572 (this paper is available in IEEEXplore). [ISBN: 978-0-7695-3915-7/09 @2009 IEEE; DOI 10.1109/ACT.2009.144].

44. Rumpa Saha, J. N. Bera "Electrical Parameter Monitoring of Machines using Microcontroller and PC Based System" Proc. NTMTEE-2009, Kolkata, July 11-12, 2009. Pp.I-1 – I-3.

45. Dibyendu Sur, Nantu Das, J. N. Bera, M. Mitra "Design of a Climate Monitoring using Total Radiation Pyrometer"Proc. NTMTEE-2009, Kolkata, July 11-12, 2009. Pp.MS-15- MS-20.

46. M.Mitra, S.Mitra, J.N.bera, R.Gupta, B.B.Chaudhury, "Preliminary Level Cardiac Abnormality Detection using Wireless Telecardiology system": The First International Conference on Digital Society (ICDS'07) at Guadeloupe, French Caribbean, Jan 02-06, 2007, (this paper is available in IEEEXplore), pp.14 [ISBN: 0-7695-2760-4/07 ©IEEE].

47. A.K.Dhara, S. Chowdhuri, J .N. Bera, S. C. Kar, S. Sengupta, "An Approach to Detect Cause of Over Current in Power System Network Using Real Time Digital Simulation", presented in the International Conference on Modelling and Simulation (MS'07) Kolkata, organized by University of Calcutta, during 3-5 December, 2007 pp 269-272.

48. S. Dey (Chaudhuri), A.Roy, S. Chowdhuri, J. N. Bera, "Study For Monitoring And Control Of Power System Parameters Using Geographical Information System", presented in the International Conference on Modelling and Simulation (MS'07) Kolkata, organized by University of Calcutta, during 3-5 December, 2007 pp 585-588.

49. A. Chowdhuri, J. N. Bera, G. Sarkar, S. Phoujdar, "PC Based Remote Speed Control and Condition Monitoring of DC Motor", presented in the International Conference on Modelling and Simulation (MS'07) Kolkata, organized by University of Calcutta, during 3-5 December, 2007 pp 751-754.

50. R.Gupta, C.Das, J.N.bera, M.Mitra, T.K.Mitra, "Transmission of ECG signal using Microcontroller Based Wireless Bi-phase modulation Technique" , proceedings of International Conference on Modeling and Simulation MS'07, Kolkata, India, December 3-5, 2007, pp 669-672

51. M.Mitra, S.Mitra, J.N.Bera, R.Gupta, B.B. Chaudhuri, "Prelininary Level Cardiac Abnormality Detection Using WIireless Telecardiology System" proceedings of The First International

Conference on the Digital Society ICDS'07, Guadeloupe, French Caribbean, 2-6 January,2007.(Proceedings is published by IEEE computer society press)

52. M.Mitra, S.Mitra, J.N.Bera, R.Gupta, B.B.Chaudhury, "A Wireless Telecardiology System for Cardiac Patient Care": Second Indian Conference on Medical Informatics and Telemedicine (ICMIT '06), at IIT Kharagpur, Jan 18-20, 2006, pp-108-112.

53. J. N. Bera, M. Mitra, S.Sengupta, "Monitoring of Rural Electric System Using GIS Technology," presented and published in *MTS-06, 2006* organized by IETE held at salt Lake, Kolkata.

54. J. N. Bera, M. Mitra, S. Sengupta , "Improvement of Rural Electric Distribution Systems Using Embedded and Wireless Networking Technologies," presented and published in *MTS-06, 2006* organized by IETE held at salt Lake, Kolkata.

55. M.Mitra, S.Mitra, J.N.Bera, R.Gupta, B.B. Chaudhuri, "A Wireless Telecardiology System For Cardiac Patient Care" Indian Conference on Medical Informatics and Telemedicine ICMIT'06, Kharagpur IIT, 18 –20 December, 2006.

56. S.Mitra, J.Bera, M.Mitra, S.Sengupta, B.B. Chaudhuri, "Wireless Communication Based Portable Telecardiology System for Rural Health Care" Proceeding CD of IETE Mid Term Symposium, 7-9 April, 2006, International Tower, Kolkata

57. J.Bera, et. all, "Multi wavelength Multimedia Wireless Commu*nication System at 60 GHz with Ku* and C band support", *presented in the International Conference CODIS 2004 organised by Jadavpur University during 8-10 January,2004, pp 168-170.*

58. J.Bera, et. all, "Use of Spread spectrum based Cellular Phone Technology to Digital Radar", presented in the International Conference CODEC 04 organized by Institute of Radiophysics & Electronics, Calcutta University, during January 1-3 ,2004.

59. J.Bera, et. all, "Multimedia MAC (medium Access Control) protocols towards personal communication network", published in HOT 2003 organised by Institute of Radiophysics & Electronics , Calcutta University

60. J. Bera, R. Bera, S. K. Sarkar, "Multimedia wireless communication systems at multi wavelengths pertaining to Information Technology", presented in URSI (International Union of Radio Science) presented in the seminar at Netherland during 17-22 August 2002.

61. R. Bera, J. Bera, A. K. Sen, "Reduction of Multipath effects on microwave LOS link over sea using diversity techniques", presented in URSI (International Union of Radio Science) presented in the seminar at Netherland during 17-22 August 2002.

62. R. Bera, A. Mitra and J. Bera, "Efficient spectrum management by utilizing low phase noise components, circuits and proper drive levels in different stages of a millimeter wave transceiver", URSI (International Union of Radio Science) presented in the seminar at Netherland during 17-22 August 2002.

63. R. Bera, J. Bera and S.K. Sarkar, "Trends in Information Technology: Development of a wireless multimedia communication system", presented and published in the *3rd All India People's Technology Congress* held at Science City, Kolkata during 9-11 February, 2001, pp 32-35.

64. R. Bera, J.Bera and A. K. Sen, "Effects of EMI on multimedia communicatiopn system at UHF Cellular frequency band and its solution", published in *All India Conference on Em,erging EMC issues in the new Millennium*, held during 19-20 June 2001, Bangalore, organised by LRDE, DRDO, Govt, Of India.

65. R. Bera, J. Bera & A.K. Sen, "Reduction of EMI from SMPS (switched mode power supplies) by resonance technique and its utilities in Industrial Process Control Instruments", presented in the *6th International Conference and workshop on Eletromagnetic Interference & Compatibility* during 2-4 December,1999, New Delhi.

66. S. K. Datta, J. Bera, R. Bera, S. Chattopadhyay and A.K. Sen, "A high performance VHF radio modem for computer communication", published in *the Int. Conference on computer and devicesfor communication (CODEC-98),*13-17 January, pp. 175-177,1998.

67. J..Bera , S,K, Datta, R. Bera, A. Maitra, A.K. Datta and A.K. Sen, "Cellular mobile radio communication in Indian Metropolises and their neighbourhoods", presented and published in *INCURSI 1998* held at science city, Kolkata.