

Dr.Byamakesh Nayak

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Associate Professor

Contact details :



INTERESTED RESEARCH AREAS:

Power Quality, Hybrid Energy

ACADAMIC DETAILS :

Ph.D in electrical engineering from KIIT University, M.Tech from Banaras Hindu University

EXPERIENCE:

About 17years teaching experience in teaching in KIIT University

Member(Technical):

1. Fellow of institution of engineers(**FIE**) **F-120062-5**
2. ISTE Membership no.-LM54498

PUBLICATION:

- 1.B.Nayak,S.das, Cuk Converter Fed Adjustable Speed DC Motor Driven Electrical Single Stage Centrifugal Pump, in WSEAS Transactions on Circuits and Systems 2014,ISSN: 1109-2734
E-ISSN: 2224-266X,scopus indexed
- 2.B.Nayak, S.Das,Transient Modeling of Z-Source Chopper with and without ESR used for Control of Capacitor Voltage in WSEAS Transactions on Circuits and Systems 2014,ISSN:1109-2734E-ISSN: 2224-266X, scopus indexed
- 3.B.Nayak, T.Choudury,Comparative Steady State Analysis of Boost and Cascaded Boost Converter with inductive ESR losses & Capacitor Current Behaviour, International Journal of Power Electronics and Drive System (IJPEDS)ISSN: 2088-8694 scopus indexed
- 4.Control analysis and experimental verification of a practical dc–dc boost converter, Journal of Electrical Systems and Information Technology ERI, Science Direct. scopus indexed

5. B. Nayak, S. Das Buck-Boost Control of Four Quadrant Chopper using Symmetrical Impedance Network for Adjustable Speed Drive, International Journal of Power Electronics and Drive System (IJPEDS) ISSN: 2088-8694 Scopus indexed
6. S. Das, B. Nayak, S. Kumar Feedback Control and dynamic behaviour of Z-Source Converter Fed Separately Excited DC Motor and Centrifugal Pump Set International Journal of Engineering and Technology (IJET), Vol 6 No 3 Jun-Jul 2014, pp 1601 -1614. ISSN: 23198613, 09754024, scopus indexed
7. Smruti Ranjan Barik, Byamakesh Nayak, Srikant Dash, A Comparative analysis of three level VSC based multi-pulse STATCOM, International Journal of Engineering and Technology (IJET) Vol 6 No 3 Jun-Jul 2014, pp-1550-1563. ISSN: 23198613, 09754024, scopus indexed
8. Byamakesh Nayak, Saswati Swapna Dash, Subrat Kumar, Proposed Method for Shoot-Through in Three Phase ZSI and Comparison of Different Control Techniques, Vol. 5, Special Issue on Electric Power Converter, July 2014, pp. 32~44, International Journal of Power Electronics and Drive System (IJPEDS) ISSN: 2088-8694 Scopus indexed
9. Non Linear I-V Curve of PV Module: Impacts on MPPT and Parameters Estimation, IJERT blind review journal, 2012, vol-1 pages 1-8.
10. Vector Control of Multi Cage Induction Motor, international journal of computer application, 2013, vol-68, no-2, pages-25-32.
11. Performance Analysis of Different Control Strategies in Z-source Inverter. ETASR, an international blind review journal, 2013, vol-3, pages 391-395. research1792-8036 ISSN (print): 2241-4487 Esci, google scholar, DOAJ, web of science, Thomson reuter master journal

International Conferences(Include in IEEE Explore):

1. A. Mohapatra, B. K. Nayak, Comparative Study on Single Diode Photovoltaic Module Parameter Extraction Methods ICPEC-13, IEEE conference available online IEEE explore, Dindigul, Tamil-nadu, 2013
2. B. Nayak, S. Das Battery Operated Closed Loop Speed Control of DC Separately Excited Motor by Boost-Buck Converter IICPE-2012, IEEE conference available online IEEE explore, Delhi university, Delhi.
3. B. K. Nayak, S. Das. Transient Modeling of Z-Source Chopper Used for Adjustable Speed Control of DC Motor Drive, PI Conference-2012, IEEE conference available online IEEE explore, Mruthul Delhi.
4. B. K. Nayak, A. Mohapatra, K. B. Mohanty, Parameters Estimation of Photovoltaic Module Using Nonlinear Least Square Algorithm: A Comparative Study, INDICON-13, IIT Mumbai, IEEE conference to be held on end of 2013.
5. Alivarani Mohapatra, Byamakesh Nayak, Banishree Misra Validation and Maximum Power Point Tracking of Photovoltaic Module, 2014 Power and Energy Systems: Towards Sustainable Energy (PESTSE 2014) IEEE conference available online IEEE explore and more....

International and national conferences:

1. An article entitled '*Performance analysis of 3 phase induction motor*' presented at IEEE conferences, organized by Birla institute of technology MESRA in the name of 'International unnyan 07' held from 5th to 8th February 2007.
2. An article entitled '*A complete dynamic model for a SPWM VSI fed induction motor drive using simulink*' presented on 'Challenges of power sector in 21st century', organized by institution of engineers, India (Orissa Chapter) held from 15th to 16th March 2008.
3. An article entitled '*Analysis of characteristics of single phase induction motor*' presented on CTASPS, organized by NM institute of engineering and technology on dated 17th March 2007.
4. An article entitled '*An overview of energy auditing in industrial sector*' presented on energy auditing and security challenge organized by institution of engineers, India (Orissa Chapter) on 20

07.

5.An article entitled '*India's future energy security challenges*' presented on energy auditing and security challenge organized by institution of engineers, India (Orissa Chapter) on 2007. And more...

Ph.D GUIDED:

5 PhD students (continued), **One** completed (Name: Saswati Swapna Dash, Regd.No- 11390821381, Topic Name:-Modeling, Inductor ESR analysis, Boundary control, and applications of non minimum phase DC-DC converters)

M.Tech THESIS GUIDED:

Guided more than 30M.Tech thesis's titles such as '*Z source Inverter*', '*Vector control of induction motor drive*', '*Torque control of induction motor drive*', '*Power quality improvement of three phase converter by 3rd harmonic injection technique*', '*Fuzzy logic control of dimmable ballast*', '*Sensor less control of IM drive*' '*Multilevel inverter*' etc.

CONFERENCE/WORKSHOPS ORGANIZED/ATTENDED:

- i. Completed one month course on '*Industrial automation by programmable logic controller*' at Central tool room and training centre, Bhubaneswar held from 1st to 30th August 2008.
- ii. Attended AICTE sponsored faculty development programmed on *Application of power electronics to emerging trends in power sector* at NIST, Berhampur from June 30th to July 5th 2008.
- iii. Attended short term course on *Evolutionary computing and advanced DSP* at NIT Rourkela from 11th to 19th June 2007.
- iv. Training program attended on *All India energy efficiency capacity building program* at Orissa renewable development energy agency on 1st and 2nd august 2005.
- v. Workshop attended on *soft computing and machine learning for signal processing, control, power and telecommunication* at Silicon Institute of technology, Bhubaneswar from 8th to 11th April 2005.
- vi. Participated with paper on *Academia industry interface for quality education: Opportunities and strategy* at Suchana Bhawan, Bhubaneswar (Fifth annual convention of ISTE and National level seminar on 22nd march 2003).