



Dr. Prithwiraj Purkait

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Education

Degree	Year	University
Ph. D.	2002	Jadavpur University
M. E. E.	1999	Jadavpur University
B. E. E.	1996	Jadavpur University

Teaching Experience (4)

Name Of The Institution	Position Held	Period
Jadavpur University	Professor in Power Engineering Dept.	2020 till date
St. Thomas' College of Engg. & Tech, Kolkata	Professor	2016 to 2020
Haldia Institute of Technology, Haldia, India	Professor	2008 to 2016
Haldia Institute of Technology, Haldia, India	Associate Professor	2004 to 2008
Haldia Institute of Technology, Haldia, India	Lecturer	1998 to 2004

Research Experience (3)

Name Of The Institution	Position Held	Year
University of Queensland, Australia	Visiting Academic	2010
University of Queensland, Australia	Visiting Fellow	2007
University of Queensland, Australia	Visiting Scholar	2005
University of Queensland, Australia	Post Doctoral Fellow	2002 to 2003

Industrial Experience (1)

Name Of Organization	Position Held	Period
Crompton Greaves Ltd., Mumbai, India	Graduate Trainee (Senior)	1996 To 1997

Field of Specialization

Fault Diagnosis and Condition Monitoring of Electrical Equipments, Application of Signal and Data Processing tools in High Voltage Engineering, Smart Grid

Courses Taught / Teaching

Electrical Machines, Basic Electrical Engineering, Electrical & Electronic Measurement, Electrical Circuits & Networks, Electrical Machine Design, Power System, High Voltage Engineering, Non-Conventional Energy Sources, Advanced Topics in Electric Machines, Digital & Power Electronics, Smart Grid Systems, Digital Signal Processing, Automation and Utilization of Electrical Energy

Laboratories Developed

Electrical Machines Laboratory, Basic Electrical Engineering Laboratory, Electrical Measurement Laboratory, Electric Circuit Theory Laboratory, Electrical Machine Design Laboratory, Real-time Hardware-in-Loop Microgrid emulation laboratory

Research Area

Real-time Hardware-in-Loop simulation, SCADA, Smart grid & renewable integration, Fault Diagnosis in Transformers, Condition Monitoring of Transformers, Fault Diagnosis of Power Transmission Lines, Condition Monitoring of Induction Motors, Signal and Data Processing Tools applied to High Voltage and Power Engineering.

Publications (110)

Type	Number
IEEE Transactions	18
IET, Elsevier Journals	5
Other International Journals	3
Total Journal Publications	26
IEEE Conferences	41
Other International Conferences	22
National Conferences	14
Total Conference Publications	79
Books published	5
Total	110

Books Published (5)

Book Title	Publisher Name	Year	Role
Electrical Machines (ISBN9780199472635)	Oxford University Press, New Delhi	2017	First Author
Transformer Ageing (ISBN1119239966)	Wiley IEEE Press, USA	2017	Second Author
Electrical and Electronics Measurements and Instrumentation	McGrawHill Education, New Delhi	2013	First Author

(ISBN978-1259029592)			
Control Systems, 3e (ISBN978-0070704657)	McGrawHill Education, New Delhi	2013	First Author
Electrical and Electronic Measurements and Instrumentation (ISBN978-0070704626)	McGrawHill Education, New Delhi	2010	First Author

Awards (10)

Award Name	Awarded By	Year
Young Engineer Award	Institution of Engineers (India)	2008
Certificate of Recognition	Power Engineering Chapter, IEEE Calcutta Section	2006
Outstanding Small Chapter Award	IEEE Power Engineering Society	2003
Certificate of Merit	Institution of Engineers (India)	2000
University Gold Medal	Jadavpur University	1999
Ganesh Janani Debi Memorial Bronze Medal	Jadavpur University	1996
Bipin Behari and Malatimala Rakshit Memorial bronze Medal	Jadavpur University	1996
Prof. H. C. Guha Memorial Award	Alumni Association, NCE Bengal and Jadavpur University	1995
National Scholarship	Ministry of Education & Culture, Govt. of India	1992
National Scholarship	Ministry of Education & Culture, Govt. of India	1990

Ph. D. Thesis Guidance (9)

Name of the Scholar	Title of Thesis	Co-Supervisor	Status	Year
Mr. C. Koley	Advanced Techniques for Identification of Faults in Transformers due to Impulse Stresses	Prof. S. Chakravorti, JU	Awarded JU	2007
Mr. S. Das	Stator Winding Fault Classification in Induction Motor Using Novel Signal Processing Methodologies	Prof. S. Chakravorti, JU	Awarded JU	2014

Externally Funded Project/Research Work (12)

Project Title	Role	Funding Agency	Amount (INR)	Year	Status	
Bhowmik Data Processing Techniques for Transmission Line Fault analysis	Coordinator	Chatterjaya, JU DST FIST	2.26 Cr	2020	Ongoing	
Development of a Renewable-based HYBRID energy System with Testing and Simulation Facilities	Incipient fault detection in 3-phase Induction Motor Inverter Drive	Dr. C. Koley, NIT Durgapur	Awarded NIT Durgapur	2019		
Modernization and Removal of Obsolescence Program (MODROBS) in Power Electronics Drives Laboratory	using Novel Signal Processing and Data Classification Tools	AICTE, Govt. of India	1991370	2020	Ongoing	
Mr. S. K. Ghosh Studies on dielectric relaxation phenomena for condition monitoring of oil paper insulation in transformers	Principal Investigator	Dr. Biswendu Chatterjee, JU and Prof. Sivadhi Chakravorti, JU	2360160	2014	Complete	
Development of an FPGA Based On-Line Condition Monitoring System for Induction Motors	Development of modern optimization and classification tools for cyber security	Dr. Subrata Biswas, NSEC India	Registered MAKAUT	2021		
Advanced Signal Processing and Data Classification Tools	enhancement of smart grid infrastructure	Principal Investigator	Council of Scientific	1500000	2012	Complete
Correlating Dielectric and Chemical Techniques for Comprehensive Condition Monitoring of Complex Insulation Systems	Development of an Online Fault Monitoring and Diagnostic System for 3-phase Induction Motors	Dr. S. Das, Jalpaiguri Govt. Engg. College India	Registered MAKAUT	2022		
Mr. S. Sarker Application of Advanced Diagnostic Tools for Comprehensive Condition Monitoring and Life Prediction of Electric Motors	Modeling and Real Time Hardware in Loop (HIL) implementation of control techniques for Microgrid (MG) and its components	Principal Investigator	Dept. of Science & Technology, Govt. of West Bengal	769000	Registered 2012	Complete 2022
Mr. S. Banjan Nath Application of Advanced Diagnostic Tools for Comprehensive Condition Monitoring and Life Prediction of Electric Motors	Modeling and Real Time Hardware in Loop (HIL) implementation of Micro Grid Monitoring and Protection Techniques	Principal Investigator	Dept. of Science & Technology, Govt. of India	380000	Registered 2010	Complete 2022
Mr. Shisanku Biswas Application of Advanced Dielectric Testing Techniques for Interpretation of Polarization Phenomena in Moisture Estimation and Prediction of Useful	Principal Investigator	Dept. of Science & Technology, Govt. of India	1944000	2009	Complete	

Remaining Life of Composite Insulation					
Implementation of Advanced Techniques for Condition Monitoring and Life Estimation of Large Electrical Equipment	Principal Investigator	All India Council for Technical Education, Govt. of India	1050000	2008	Complete
DST International Travel Grant	Recipient	Dept. of Science & Technology, Govt. of India	94000	2008	Complete
Development of Dielectric Diagnostic Equipment for Condition Monitoring and life estimation of Transformers	Principal Investigator	University Grants Commission, Govt. of India	946000	2008	Complete
Advanced Signal Processing Tools for Impulse Fault Diagnosis in High Voltage Transformers	Principal Investigator	University Grants Commission, Govt. of India	606000	2004	Complete
Advanced Techniques for Condition Monitoring and Life Prediction of Power Transformers	Co-Principal Investigator	All India Council for Technical Education, Govt. of India	825000	2004	Complete

Invited Lectures (30)

Title	Event	Venue	Year
Wavelet Transforms Applications in Signal Processing	1 week FDP on "Computational Methodologies"	HIT Haldia	2022
Integration of Renewables into Smart Grid	3rd One Week Self-Financed Short-Term Course on Advances in Power Technologies (APT-2021)	MNNIT, Allahabad	2021
IoT Based Smart Energy Meter - For use in Hybrid Smart Grid	International Conference on Industrial Instrumentation & Control (ici2c-2021)	RCCIT	2021

Research and Technical Challenges in Energy and Power System	(RTCEPS 2020)	NSEC, Kolkata	2020
Integration of Renewables into Smart Grid	FDP on "INNOVATION AND INTELLIGENCE" (FDPII 2020)	NIT, Durgapur	2020
IoT Based Smart Energy Meter for use in Hybrid Smart Grid	STTP on "Recent Trends in Internet of Things (IoT) and Embedded System Based Monitoring and Control of Distributed Generation"	Narula Inst. of Tech, Kolkata	2020
Innovation & Entrepreneurial ideas sparked by Covid-19	Innovation & Entrepreneurial Ideas fuelled by COVID-19	Modern Institute of Engineering & Technology, Bandel	2020
Roadmap for Research in Hybrid Smart Grid	Research and Technical Challenges in Energy and Power System (RTCEPS 2020)	Narula Inst. of Tech, Kolkata	2020
Introduction to MOODLE	FDP on LMS creation using MOODLE	STCET, Kolkata	2019
Cole-Cole Representation of Transformer Oil-Paper Insulation Dielectric Response	IEEE 3rd International Conference on Condition Assessment Techniques in Electrical Systems (CATCON)	IIT Ropar, Punjab	2017
Application of PSICE for Circuit simulation	Workshop on Computational & Simulation Tools (CAST) in Electrical Engineering	STCET, Kolkata	2017
Expert System in fault Diagnosis	Workshop on SCDRACMEE	IEST, Shibpur	2016
Wavelet Transforms	Short Term Course on Advanced Communication and Signal processing	Haldia Institute of Technology	2015
Globalization in Engineering Education	Faculty Development Programme	Haldia Institute of Technology	2015
Condition Monitoring of Electrical Equipments	National Conference on Recent Trends in Power Engineering	Heritage Inst. of Technology, Kolkata	2014
Condition Monitoring and Life Prediction of Power Transformers	IEEE Student Branch, NIT Durgapur	Seminar Hall, NIT Durgapur	2012

Condition Monitoring of Induction Motors	Department of Applied Physics- University Of Calcutta, IEEE PES Calcutta Chapter, IET-UK Kolkata Local Network	Seminar Hall, Calcutta University	2011
Wavelet Transform in Motor Fault Analysis	Department of Applied Physics- University Of Calcutta, IEEE PES Calcutta Chapter, IET-UK Kolkata Local Network	Seminar Hall, Calcutta University	2010
Wavelet Transforms	IEEE Student Branch, CIEM Kolkata	Seminar Hall, CIEM, Kolkata	2010
MATLAB Applications in Control System Design	Faculty Development Programme, TEQIP	Seminar Room, EE Dept., HIT	2008
Industrial Drives	Electrosteel Castings Ltd.	Seminar Hall, ESCL, Haldia	2008
Concepts of Electric Drives	Haldia Petro-Chemicals Ltd.	Seminar Hall, HRD, HPL	2007
Alternative Transients Program (ATP) Electromagnetic Transient Program (EMTP)	Power Engineering Chapter IEEE Calcutta Section, Electrical Engineering Department-Jadavpur University, TEQIP NETWORKING GROUP, J.U.,	Seminar Room, EE Dept., JU	2006
Dielectric Response Measurements for Transformer Condition Monitoring	Asansol Engineering College	Seminar Hall, Asansol Engineering College	2006
Soft Computing Techniques in Electrical Engineering	Crompton Greaves Ltd., Mumbai	Seminar Hall, Crompton Greaves Ltd.	2006
Application of SVM in Power Engineering	Crompton Greaves Ltd., Mumbai	Seminar Hall, Crompton Greaves Ltd.	2006
Moisture in Transformer	Crompton Greaves Ltd., Mumbai	Seminar Hall, Crompton Greaves Ltd.	2005
Moisture Diagnostics in Electrical Equipments using Dielectric Response Analysis	Crompton Greaves Ltd., Mumbai	Seminar Hall, Crompton Greaves Ltd.	2005
RVM, PDC and FDS Techniques	Crompton Greaves Ltd., Mumbai	Seminar Hall, Crompton Greaves Ltd.	2005

Dielectric Response Function and Insulation Model	Crompton Greaves Ltd., Mumbai	Seminar Hall, Crompton Greaves Ltd.	2005
Dielectric Response Measurements for Transformer Insulation Condition Monitoring	IEEE PES Chapter, IEEE Calcutta Section & Haldia Institute of Technology	The Ffort Radisson, Raichak	2005
Applications of Wavelet Transform in Electrical Engineering	Birla Institute of Technology - Meshra	Seminar Hall, BIT, Ranchi	2004
Wavelet Transforms and their Applications in Electrical Engineering	IEEE PES Chapter, IEEE Calcutta Section & Jadavpur University	Seminar Room, EE Dept., JU	2004
Advanced Techniques for Condition Monitoring and Life Prediction of Power Transformers	IEEE PES Chapter, IEEE Calcutta Section & West Bengal State Electricity Board	BidyutBhawan, WBSEB, Kolkata,	2003

Seminar / Conference / Workshop / Short Term Course attended (40)

Program Name	Organized by	Venue	Year	Role
Online FDP on "LaTeX for Students, Engineers, and Scientists"	IITBombayX-LAKSHYA	Online	2019	Participant
Online FDP on "Courseware creation using Moodle for Outcome based Education"	(HRDC), Integral University, Lucknow	Online	2019	Participant
Faculty development program on "Outcome based education for Accreditation"	NITTTR, Kolkata	NITTTR, Kolkata	2019	Participant
IEEE Applied Signal Processing Conference (ASPCON 2018)	IEEE Kolkata Section, IEEE SPS Kolkata Chapter	Jadavpur University, Kolkata, India	2018	Participant
Faculty development program on "Effective Teaching"	NITTTR, Kolkata	NITTTR, Kolkata	2018	Participant
IEEE 3rd International Conference on Condition Assessment Techniques in Electrical Systems (CATCON)	IEEE DEIS, IEEE Delhi Section	IIT Ropar, Punjab	2017	Session chair, Invited Lecture
IEEE International Conference, UPCON 2016	IEEE UP Section	IIT BHU	2016	Participant

Workshops/Conferences/ seminars/ Training courses Organized (13)

Event	Venue	Year	Role
Faculty disciplinary Refresher Programme "Renewable Energy & its Digital Translation"	CETPE Dept., JUIT Kharagpur, India	2022	Participant
Skill development programme "Hands on, Work shop on ARDUINO Microcontroller & its application"	University of Kolkata, Calcutta	2018	Coordinator
Guest lecture on Advances in Robotics Research in Design Development and Applications's CATCON	IEEE STCET, Kolkata	2018	Coordinator, Paper Presentation
Guest lecture on how to be a Successful Entrepreneur	NERIST, Kolkata	2018	Paper Presentation
Workshop on Simulation Tools (CAST) on Electrical Engineering (IET-2012)	IEEE Student Branch	2012	Key-Note Speaker
Workshop on Application of Microcontrollers	IEEE STCET, Kolkata, Indonesia	2017	Paper Presentation
Workshop on Autonomous Robotics Monitoring	STCET, Kolkata University	2016	Invited Speaker
Faculty Development Programme on Contemporary Engineering Practices	IEEE HPSHALDIA Kolkata Section	2015	Organizing chair
Hands on Workshops on MATLAB & PSICE, Robotics, Microcontrollers	IEEE HPSHALDIA Kolkata Section	2008-2015	Paper Presentation
Student Branch Transform in 21 st National Conference on Emerging Technology & Technical Education, ET & TE	IEEE HPSHALDIA Kolkata Section	2010	Jt. Convener
18 th National Conference on Emerging Technology & Technical Education, ET & TE	IEEE HIT, HALDIA	2010	Jt. Convener
IEEE Power System Restructuring and Deregulation (PSRD) Conference	IEEE Florida	2006	Paper Presentation
National Seminar on Advanced Condition Monitoring Techniques in Large Electrical Equipments (ACMITS)	WASET Penang, Malaysia	2010	Paper Presentation
International Conference of Engineers and Computer Scientists (IMECS)	IAENG Hong Kong	2009	Paper Presentation

Professional Society Activities (4)				
	Type of Professional Activity	Section	Mumbai	Period
Conference NPSC	IEEE R10 Conference	IEEE R10	University of	2008
Member of IEEE, USA, Society Membership: PES	TENCON 2008	IEEE Calcutta	Hyderabad	1998 - 2010
Treasurer of the Power Engineering Chapter of	IEEE Power Engineering Branch Counsellor of the IEEE Society, General Meeting	IEEE PES Student Branch at IIT, Haldia, USA		2003 - 2006
Senior Member of IEEE, USA	International Conference on Power Systems (ICPS)	IEEE Bangalore Section	CPRI, Bangalore	2007
Short-Term Course on 'Advanced Computing Techniques in Electrical Engineering'	IEEE Kolkata Section	Jadavpur University		2006
14 th National Power Systems Conference NPSC	IEEE Delhi Section	IIT Roorkee		2006
Workshop on LABVIEW based Data Acquisition	National Instruments	Kolkata		2006
International Seminar on Power System Restructuring and Deregulation (PSRD)	IEEE Kolkata & IEEE Kharagpur Sections	Haldia		2006
National Seminar on Advanced Condition Monitoring Techniques in Large Electrical Equipments (ACMTLEE)	IEEE Kolkata Section	Roychak		2005
IEEE India Conference (INDICON)	IEEE Madras Section	IIT Chennai		2005
IEE International Conference on Energy, Information Technology & Power Sector (PEITSICON)	IEE Kolkata Chapter	IE(I) Kolkata		2005
13th National Power System Conference (NPSC)	IEEE Madras Section	IIT Chennai		2004
Workshop on Causes and Mitigation of Pollution Caused by Power Plants	CEMK	Kolaghat		2004
Workshop on Recent Advances in Power System Under Deregulated Environment	CEMK	Kolaghat		2004
All India Seminar on Integrated Operation of Power Systems	IE (I)	Kolkata		2003

Industrial Consultancy / Testing (5)

Job Title	Organization Name	Amount (Rs.)	Year
Engineering Conference (IPEC)	Singapore Council		
Australasia Condition Monitoring Power Engineering Conference	IE (A) Power Grid Corporation of India Ltd. Australia	2002	Paper Presentation 2011
Course on Industrial Drive Selection	Electrosteel Castings Ltd. Bangalore	27000	2008
21st International Conference on High Voltage Engineering (ISH)	Bangalore	15000	Paper Presentation 2008
Training Course on Transformer Condition Monitoring	Crompton Graves Ltd. Mumbai	20000	2005

Reviewer of International Journals (8)

- IEEE Transactions on Dielectrics & Electrical Insulation
- IEEE Transactions on Power Delivery
- IEEE Transactions on Power Systems
- IEEE Transactions on Energy Conversion
- IEEE Transactions on Education
- IEEE Transactions on Industrial Electronics
- IET Proceedings – Generation, Transmission and Distribution
- International Journal of Electric Power and Energy Systems
- International Journal of Electric Power Components and Systems

Administrative Activities (7)

Job Title	Organization	Period
In-charge, DST FIST Project	PE Dept., JU	2020 till date
Member, NBA core committee	Power Engg. Dept, JU	2020
Head, Department of Electrical Engg.	St. Thomas' College of Engg. & Tech.	2019 -20
Coordinator, Research & Professional Development Cell	St. Thomas' College of Engg. & Tech.	2018-19
Coordinator, Entrepreneurship Development Cell	St. Thomas' College of Engg. & Tech.	2017-19
Dean, School of Engineering	Haldia Institute of Tech.	2012 – 2016
Convener of Anti Ragging Committee	Haldia Institute of Tech.	2010 – 2015
Head of the Department of Electrical Engineering	Haldia Institute of Tech.	2004 - 2012
Convener of Publication Committee	Haldia Institute of Tech.	2007 - 2009
Convener of Academic Council	Haldia Institute of Tech.	2005 - 2009

Personal Details

Date of Birth	02.12.1973
Father's name	Sri. Nripendra Nath Purkait
Mother's name	Smt. Bithi Purkait
Native Place	Garia, PO - Dhalua, Kolkata - 700152