Curriculum Vitae

1. **Name :** Anirban Ghoshal

2. **Contact Information:**

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Phone Number: +91-8986625394, +91-6206305331

Address: Department of Electrical Engineering, IIT(ISM) Dhanbad, Dhanbad, Jharkhand, 826004

3. **Personal Information:**

Date of Birth: 14th March, 1981

Gender: Male

4. **Professional Affiliation:**

Current Position/Designation**:** Assistant Professor

Department/Faculty: Electrical Engineering

Name of the Institute/Organization: IIT(ISM) Dhanbad

5. **Academic Qualification (Undergraduate Onwards)**

Sl No.	Degree	Year	Subject	University/ Institution	% of marks
1	Bachelor of Engineering (B.E.)	2003	Electrical Engineering	Bengal Engineering College (D.U.), Shibpur	74.3%
2	Master of Technology (M.Tech)	2006	Power Electronics Electrical Machines and Drives	Indian Institute of Technology Delhi	8.55/10
3	Doctor pf Philosophy (Ph.D)	2014	Electrical Engineering	Indian Institute of Science Bangalore	NA

Ph.D. Thesis Title : Operation of three phase four wire grid connected VSI under non ideal conditions
Guide's Name : Dr. Vinod John
Institution : Indian Institute of Science Bangalore
Year of Award : 2014

6. Work Experience (in chronological order)

Sl. No.	Positions held	Name of the institute	From	To	Pay scale
1	Consultant	IE Power Technology Bangalore	October 2013	May 2014	INR 40000/- per month
2	Research Fellow	National University of Singapore	July 2014	December 2015	SGD 4100/- per month
3	Consultant	IE Power Technology Bangalore	March 2016	August 2016	No fixed salary
		Suncraft Energy Kolkata	Sepetember 2016	June 2017	
4	Assistant Professor (On Contract)	IIT(ISM) Dhanbad	July 2017	June 2019	Payband 3 (Rs. 15,600-39,100/-)
5	Assistant Professor	IIT(ISM) Dhanbad	July 2019	Sepetember 2022	Pay Level -12
6	Assistant Professor	IIT(ISM) Dhanbad	October 2022	Till Date	Pay Level - 13A1

7. Research Experience:

S.No.	Position held	Institution	From	To	Research Focus/Interests
1.	Research Scholar	IISc Bangalore	July, 2006	June 2014	Grid connected operation of power converter under non-ideal condition
2.	Research Fellow	National University of Singapore	July 2014	December 2015	DC bus electrolytic capacitorless inverter design and control.
3.	Assistant Professor	IIT(ISM) Dhanbad	July 2017	Till Now	DC bus electrolytic capacitorless VSI, Induction Motor control, EV battery charging, Design of high frequency SiC power converter

8. Professional Recognition/ Awards/ Prizes/ Certificates/ Fellowships received

Sl.No	Name of Award	Awarding Agency	Year
1	Scholarship for Master's degree	MHRD	2004-2006
2	Doctoral degree fellowship	MHRD	2006-2011

9. Journal Publications

S.No.	Authors	Title	Journal	Volume	Pages	Year
1	S. Kumar, B. Panda and A. Ghoshal	Implementation of SOLM as an Extended SVPWM for Variable Six Pulse DC-Bus Electrolytic Capacitor-less VSI Based Constant V/f Induction Motor Drive	IEEE Transactions on Power Electronics	--	--	2025
2	Akurati Prabhakar, Urbesh Sarkar, Ritwik Ghoshal, Anirban Ghoshal	A method for consistent cavitation bubble generation at different voltages	Review of Scientific Instruments	94	--	2023
3	B. Panda and A. Ghoshal	An ANN based switching network for optimally selected photovoltaic array with battery and supercapacitor to mitigate the effect of intermittent solar irradiance	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	44	5784-5811	2022
4	X. Pan, A. Ghoshal[2], Y. Liu, Q. Xu and A. K. Rathore,	Hybrid Modulation Based Bidirectional Electrolytic Capacitor-less Three-phase Inverter for Fuel Cell Vehicles: Analysis, Design, and Experimental Results	IEEE Transactions on Power Electronics	33	4167 - 4180	2018
5	V. K. Kanakesh, A. Ghoshal, D. B. Yelaverthy, A. K. Rathore and R. Mahanty	Analysis and Implementation of Closed Loop Control of Electrolytic Capacitor-less Six Pulse DC Link Bidirectional Three-phase Grid-Tied Inverter	IEEE Transactions on Industry Applications	54	539 - 550	2018
6	A. Ghoshal, X. Pan and A. Rathore	Analysis and design of closed loop control of electrolytic capacitor-less six-pulse dc link three-phase inverter	IEEE Transactions on Industry Applications	53	4957 - 4964	2017

7	A. Ghoshal and V. John	High accuracy multirate implementation of resonant integrator using FPGA	IET Power Electronics	10	348-356	March 2017
8	A. Ghoshal and V. John	Reconfiguration of three phase MAFSRF-PLL as single phase PLL	INAE Letters	1	47-51	Oct 2016
9	A. Ghoshal and V. John	A controller design method for 3 phase 4 wire grid connected VSI with LCL filter	Sadhana - Academy Proceedings in Engineering Science	40	1481-1499	August 2015
10	A. Ghoshal and V. John	Performance evaluation of three phase SRF-PLL and MAF-SRF-PLL	Turkish Journal of Electrical Engineering & Computer Science	23	1781-1804	May 2015
11	A. Ghoshal and V. John	Active damping of LCL filter at low switching to resonance frequency ratio	IET Power Electronics	8	574-582	Feb 2015

10. Conference Publications

	Authors	Title of paper	Conference	Year
1.	A.K. Singh, A. Ghoshal and S. Das	Peak Current Mode Controlled Phase Shifted Multi-phase Buck Converter for 48V/72V EV Battery Charging	PEDES 2024, 18-21 December, Surathkal, India	2024
2.	S. Kumar and Ghoshal	Electrolytic Capacitor-less Inverter driven Induction Motor with V/f Control for Use in Water Pumping Applications	DELCON 2022, 11-13th February, New Delhi, India.	2022
3.	B. Panda and A. Ghoshal	Performance of Electrolytic capacitor-less inverter under various modulation techniques	NPEC 2021, 15-17 December Bhubaneswar, India	2021

4	V. K. Jaiswal and A. Ghoshal	A design methodology of bidirectional LLC resonant converter for energy storage systems	2019 IEEE Transportation Electrification Conference and Expo, Asia-Pacific (ITEC Asia-Pacific), Seogwipo-si, Korea (South), 2019	2019

11. Details of Patents filed/granted

S.No.	Patent Title	Name of Applicant(s)	PatentNo.	Award Date	Agency/Country	Status
1	A hybrid renewable energy driven bidirectional wireless charging system for dynamic and static electric vehicle	Prof. P.K. Sadhu, Prof. Nitai Pal, Prof. Arijit Baral, Prof. K. C. Jana, Prof. Anirban Ghosal	202231032196	-	India	Filed on 06/06/2022
2	Multi-Phase Synchronous Buck Converter for the Charging Stage of An Off board Electric Vehicle Charger	Prof. Anirban Ghosal, Prof. Sukanta Das, Mr. Amit Kumar Singh/Research Scholar	202331074730	-	India	Filed on 02/11/2023

12. Research Grants received and Projects executed

Details of Projects completed

S.No.	Title	Cost (Rs. In Lakhs)	Project Duration (Months)	Role (PI/Co-PI)	Funding Agency
1.	Dynamic Charging of Electrical Vehicle using Wireless Power Transfer Technique	10.0	24	Co-PI	IIT(ISM) Dhanbad
2.	Development of Fast-Chargers for EV	7.0	12	Co-PI	IIT(ISM) Dhanbad
3.	Achieving improved operation of six pulse dc bus electrolytic capacitor-less three phase inverter	23.2975	42	PI	DST-SERB
4.	Design and development of compact and modular inverter systems	10.0	48	PI	IIT(ISM) Dhanbad

13. PhD and PG students guided

PhD: 01 completed and 03 Ongoing.
MTech: 20 Completed

14. Consultancy Works

Sl No.	Title of the work	Name of PI/Co-PI etc.	Consultancy project no	Sponsoring Authority	Date of Sanction & Duration	Total value (excluding taxes)	Amount Released	Completed /ongoing
1	Proof checking for design and drawings of 17MLD sewerage treatment plant in Ramgarh town Jharkhand.	CI: Prof. Tanish Dey; Co-CI: Prof. Rahul Bhartiya; Co-CI: Prof. S. Choudhary; **Co-CI: Prof. A. Ghoshal**	CONS 7296 C	M/s Enviro Infra Engineers Ltd.	13/08/2024	Rs. 5,01,500	--	Completed