BIO-DATA

1. **Name and address for correspondence: Susovon Samanta, Room Number: EE-126, Dept. of EE, NIT, Rourkela**

2. **Designation: Asst. Professor (Grade-I)**

3. **Email Id** 1: **samantas@nitrkl.ac.in** **Email Id 2 : samanta.susovon@gmail.com**

4. **Landline No**- 06612462420 **Mobile: 9439104535**

5. **Institution: National Institute of Technology, Rourkela**

6. **Specialization:** Power Electronics & Control, Renewable energy.

7. **Academic Qualification**

Sl.No.	Degree	Year	Branch/Discipline	University/Institution	% Marks or Grade
1.	BE	1998	Electrical Engineering	REC (Duragpur)	75.3
2.	ME	2003	Electrical Engineering (Specialization: Control System)	Jadavpur University	77.36
3.	Ph.D	2013	Electrical Engineering (Power Electronics and Control)	IIT, Kharagpur	NA

8. **Ph.D thesis title, Guide's Name, Institute/Organization/University, Year of Award**

Ph.D Thesis Title	Guide's Name	University/Institution	Year of Award
New Models and Methods for Simulation and Compensator Design for Buck Converters under Peak Current Mode Control	Prof. Siddhartha Mukhopadhyay	IIT, Kharagpur	2013

9. **Work Experience:**

Sl. No.	Designation	Name of the Institute/Organization	From Month-year	To Month-Year	Responsibility
1.	Lecturer	Birbhum Institute of Technology, Suri, West Bengal	1st August, 2000	22nd July, 2003	Teaching
2.	Lecturer	BIT, Mesra	25th July, 2003	25th July, 2004	Teaching
3.	Asst. professor	NIT, Rourkela	30th March, 2009	5th November, 2012	Teaching and Research

	(AGP: 6000)				
4.	Asst. Professor (AGP:7000)	NIT, Rourkela	6th November, 2012	31st January, 2018	Teaching and Research
5.	Asst. professor (AGP: 8000)	NIT, Rourkela	1st February, 2018	Continue	Teaching and Research

10. **Professional Recognition/ Award/ Prize/ Certificate/Fellowship received***:*

Sl.No.	Name of Award	Awarding Agency	Year
1.	Merit scholarship for securing 3rd position in 6th Semester during BE	REC (Durgapur)	1997
2.	GATE fellowship	MHRD	2001-2003
3.	Institute research fellowship	MHRD	2004-2008
4.	IETE-K S KRISHNAN MEMORIAL AWARD-2021	IETE	2021

11. **Publications** *(List of papers published in SCI Journals, in year wise descending order).*

Sl.No.	Author(s)	Full title	Name of the Journal	Volume	Year	Page (from-to)
1	G Yedukondalu, **S. Samanta** and M C Joshi	Analysis, Design, and Minimum Phase Selection of High Power Interleaved DC-DC Converter	**International Journal of Circuit Theory and Applications, Wiley**	Accepted	2022	NA
2	J Mishra, P K Behera, M Pattnaik and **S. Samanta**	An Efficient Supervisory Power Management Scheme for a Wind–Battery-Assisted Hybrid Autonomous System	**IEEE Systems Journal**	Early Access	2022	1-12
3	N., Agrawal, **S. Samanta** and S. Ghosh	Optimal State Feedback-Integral Control of Fuel-Cell Integrated Boost Converter	**IEEE Transactions on Circuits and Systems II: Express Briefs**	Vol:69 Issue:3	2022	1382-1386
4	N., Agrawal, **S. Samanta** and S. Ghosh	Modified LQR Technique for Fuel Cell Integrated Boost	**IEEE Transaction on Industrial**	Vol:68 Issue: 7	2021	5887 - 5896

		Converter	**Electronics**			
5	S. Bhattacharyya, D.S. Kumar P, **S. Samanta** ,and S Mishra	Steady Output and Fast Tracking MPPT (SOFT-MPPT) for P&O and InC Algorithms	**IEEE Transaction on Sustainable Energy**	Vol: 12 , Issue:1	2021	293-302
6	Maturi, Krishnaja, and **S. Samanta**	Modeling of high-side active clamp forward converter with resistive parasitics	**COMPEL**	Vol.39, no.2	2020	413-430
7	M.C. Joshi, and **S. Samanta**	Energy Management With Improved Frequency Sharing Based Control for Battery/Ultracapacitor Hybrid Energy System in the Presence of Delay	**IET Power Electronics**	Vol: 13 , Issue:10	2020	2019-2028
8	J. Mishra, M. Pattnaik and **S. Samanta**	Drift Free Perturb and Observe MPPT Algorithm with Improved Performance for SEIG based Stand-alone Wind Energy Generation System	**IEEE Transactions on Power Electronics**	Vol: 35 , no:6	2020	5842 - 5849
9	P. Bankupalli, S. Ghosh, L. Kumar , **S. Samanta** and S. Jain	Operational Adaptability of PEM Fuel Cell for Optimal Voltage Regulation with Maximum Power Extraction	**IEEE Transactions on Energy Conversion**	Vol: 35, no:1	2020	203 - 212
10	M.C. Joshi, and **S. Samanta**	Improved energy management algorithm with time-share-based ultracapacitor charging/discharging for hybrid energy storage system	**IEEE Transactions on Industrial Electronics**	Vol.66, no:8	2019	6032-6043
11	M Killi and **S Samanta**	Voltage-sensor-based MPPT for stand-alone PV systems through voltage reference control	**IEEE Journal of Emerging and Selected Topics in Power**	Vol.7, no:2	2019	1399-1407

			Electronics			
12	M. Joshi, **S. Samanta** and Gopalakrishna S	Frequency Sharing Based Control of Battery/Ultracapacitor Hybrid Energy System in the Presence of Delay	**IEEE Transactions on Vehicular Technology**	Vol: 68, no:2	2019	10571 - 10584
13	P T Bankupalli, S Ghosh, Lalit Kumar, **S. Samanta**, and T V Dixit	A non-iterative approach for maximum power extraction from PEM fuel cell using resistance estimation	**Energy Conversion and Management, Elsevier**	Vol.187	2019	pp.565-577
14	J Sahoo, **S. Samanta,** and S Bhattacharyya	Adaptive PID controller with P&O MPPT algorithm for photovoltaic system	**IETE Journal of Research**	-	2018	10
15	P. Bankupalli, S. Ghosh, L. Kumar and **S. Samanta**	Fractional order modeling and two loop control of PEM fuel cell for voltage regulation considering both source and load perturbations.	**International Journal of Hydrogen Energy, Elsevier**	Vol 43, no. 12	2018	6294-6309.
16	M Killi and **S Samanta**	Modified Perturb and Observe MPPT Algorithm for Drift Avoidance in Photovoltaic Systems	**IEEE Transactions on Industrial Electronics**	Vol. 62, no: 9	2015	5549 - 5559
17	M Killi and **S Samanta**	An adaptive voltage-sensor-based MPPT for photovoltaic systems with SEPIC converter including steady-state and drift analysis	**IEEE Transactions on Industrial Electronics**	Vol. 62, no. 12	2015	7609-7619
18	S Ghosh, and **S. Samanta**	Fixed structure compensator design using a constrained hybrid evolutionary optimization approach.	**ISA Transactions, Elsevier**	Vol. 53, no. 4	2014	1119-1130
19	**S. Samanta**, S Mukhopadhyay, and R Sheehan	Discrete-time simulation of a peak current controlled	**IET power electronics**	Vol 4, no. 6	2011	642-650

		DC/DC buck converter using modal decomposition.				

12. **List of Current Sponsored Projects as PI:**

Sl.No.	Title	Sponsor	Amount	From Date (Month-Year)	To Date (Month-Year)
1	Design, development and prototyping of state of the art Hybrid Energy Storage System (HESS) based high power high speed Electric Vehicle (EV) drive train for a Multi Utility Vehicle (MUV)	IMPRINT-II, SERB	144.452 lakhs	March 2019	March 2023

13. **List of Completed Sponsored Projects as PI:**

Sl. No.	Title	Sponsor	Amount	From Date (Month-Year)	To Date (Month-Year)
1	Design and Development of a Bidirectional DC-DC Converter with Power & Energy Management of Battery and Ultracapacitor for an Electric Bike with Regenerative Braking	Extra Mural Reserach, SERB-DST	17.028 lakhs	March, 2015	June, 2018
2	Modeling and Controller Design for Active Clamp Forward Converter with Multiple Outputs used as Electronic Power Conditioner (EPC)	RESPOND, ISRO	20.48 lakhs	May,2015	July, 2018
3	Hybrid Optimization Based Fractional Order Fuel Cell Modeling and Online Parameter Estimation with Design of Adaptive Controller for Integrated Power Converters	NRB, DRDO	12.98 lakhs	Oct, 2015	June, 2019
4	Design and Development of a Standalone PV system using Three Port DC/DC Converter and H-Bridge Inverter for	DST-IPHEE	47.55 lakhs	Jan, 2017	April, 2020

	Home Application				

14. **Details of Ph.D. Thesis guided as Main Supervisor:**

Ph.D Thesis Title	Student	Year of Award
Development of Efficient MPPT Algorithms with Reduced number of Sensors for Photovoltaic Systems	Muralidhar Killi	2017
Control & Energy Management of Battery/Ultracapacitor Based Hybrid Energy Storage System	Mahendra Chandra Joshi	2020