

**Dr. TAPAS HALDER**

## **LIST OF PUBLICATION**

### **JOURNAL:**

1. S. S. Saha, B. Majumdar, **T. Halder** and S. K. Biswas, “Optimized design of a fully soft switched boost converter suitable for power factor correction”, **International Journal of Electronics**, **93: 11**, pp. 755-768.
2. **T.Halder**, “Improved Performance Analysis of Clamp Circuits With Flyback Converter”, International Journal of Emerging Technology and **Advanced Engineering Website: www.ijetae.com (ISSN 2250-2459, Volume 2, Issue 1, January 2012) pp. 1-8.**
3. **T.Halder**, “HOT AND INTELLIGENT TRENDS OF WIND ENERGY”, **International Journal of Reasons**, (ISSN 2277-1654, Vol.-X. 2011) pp. 55-59.
4. **T. Halder**, “Spacecraft Power Systems Using the Flyback Converters”, **International Journal of Reasons**, (ISSN 2277-1654, Vol.-XII. 2013) pp. 102-109.
5. Jotirmay Biswas & **T. Halder**, “Electric Shock and Design Optimizations of the Electrical Earthing Systems” **International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET) (An ISO 3297: 2007 Certified Organization) Vol. 3, Issue 11, November 2014. ISSN: 2319-8753**
6. Swarnali Jhampati, & **T. Halder**, “ Health is Wealth - A Straight Forward Diagnosis of ECG Signal of Human Heart” **International Journal of Innovative Research in Science, Engineering and**

**Technology (IJIRSET) (An ISO 3297: 2007 Certified Organization) Vol. 3, Issue 11, November 2014. ISSN: 2319-8753**

### **MAGAZINE:**

1. **T. Halder**, “Charge Controller of Solar Photo-Voltaic Panel Fed (SPV) Battery”, Kalyani Government Engineering College, Reasons-2011.
2. P. K. Das and **T. Halder**, “FORECASTING OF LOAD AND ENERGY REQUIREMENTS”, Kalyani Government Engineering College, Reasons-2011.

### **PAPERS INCLUDED IN BOOK:**

1. MD, T. Hoque, A. K. Sinha, **T Halder**, “A Smart Strategy of Automatic Generation & Control (AGC)”, **www.taylorandfrancis.com CRC Press 2016**, pp. 53-58.
2. Md, T. Hoque, A. K. Sinha, **T Halder**, “An improved strategy of energy conversion and management using PSO algorithm”, **www.taylorandfrancis.com CRC Press 2016**, pp. 307-312.

### **IEEE CONFERENCES:**

1. **T. Halder**, S. S. Saha, B. Majumdar, and S. K. Biswas, “A New Control Circuit Extends the Effective Duty Cycle Range of Flyback Converters”, **IEEE PEDS 2005**, Vol: 1, **pp. 413-417**.
2. S. S. Saha, B. Majumdar, **T. Halder** and S. K. Biswas, “A New fully soft-switched Boost Converter with reduced conduction losses”, **IEEE PEDS 2005**, Vol: 1, **pp. 107-112**.

3. **T. Halder**, “Charge Controller of Solar Photo-Voltaic Panel Fed (SPV) Battery”, **IEEE, IICPE-2010, pp.1-4.**
4. **T. Halder**, An Improved and Simple Loss **REDUCTION TECHNIQUE IN DISTRIBUTION AND TRANSMISSION (T&D) NETWORK IN POWER SYSTEM” IEEE, IICPE-2012, pp.1-6.**
5. **T. Halder**, “An Improved and Simple Hybrid Energy Recovery Snubber Circuit for Generic Power Converters and Protection Scheme” **IEEE, IICPE-2012, pp.1-6.**
6. **T. Halder**, “An Improved Hybrid Energy Recovery Soft Switching Snubber for the Flyback Converter” **IEEE, PEDES-2012, pp.1-6.**
7. **T. Halder**, “Hot Modeling and Simulation of High Voltage Direct Current (HVDC) Power Transmission” **IEEE, PEDES-2012, pp.1-6.**
8. **T. Halder**, “Study of Rectifier Diode Loss Model of the Flyback Converter” **IEEE, PEDES-2012, pp.1-6.**
9. **T. Halder**, “Power Factor Improvement of Flyback Converter with Leakage Energy Recovery” **IEEE, ICPEN-2012** (Proceedings, not in IEEE X-plore).
10. **T. Halder**, “An Improved Hybrid Snubber Circuit for Generic Power Converters” **IEEE, ICPEN-2012**( Proceedings , not in IEEE X-plore)
11. **T. Halder**, “A Comprehensive Survey of Grid Failure in INDIA”, **IEEE, ICPEC’13 pp. 704-709.**
12. **T. Halder**, “Comparative Study of HVDC and HVAC for a Bulk Power Transmission” **IEEE, ICPEC’13 pp.139-144.**
13. **T. Halder**, “Improved Coupled Inductor Loss Optimization of the Flyback SMPS” **IEEE, ICPEC’13 pp. 798-802.**
14. **T. Halder**, “Comprehensive power loss model of the main switch of the Flyback converter” **IEEE, ICPEC’13 pp. 792-797.**

15. **T. Halder**, “A case file on a smart grid” Industrial Electronics (ISIE), **2013 IEEE International Symposium on**, pp. 1-6.
16. **T. Halder**, “Spacecraft Electrical Power Systems (EPS) Using the Flyback Converters”, **IEEE Proceedings of 2014** 1st International Conference on Non Conventional Energy (ICONCE 2014) pp. 52-57
17. **T. Halder**, “A Smart Metering System” **IEEE Proceedings of 2014** 1st International Conference on Non Conventional Energy (ICONCE 2014) pp. 204-209.
18. **T. Halder**, “Continuous Conduction Mode (CCM) of Operations & Stability Analysis of the Flyback SMPS” **IEEE Proceedings of 2014** 1st International Conference on Non Conventional Energy (ICONCE 2014) pp. 292-297.
19. **T. Halder**, “A Strategy of Smart and Hybrid Power Distribution Systems” **IEEE Proceedings of 2014** 1st International Conference on Non Conventional Energy (ICONCE 2014) pp. 210-215.
20. **T. Halder**, “A Smart Grid” **6<sup>th</sup> IEEE POWER INDIA International Conference 2014 (PICON 2104)** pp.
21. **T. Halder**, “A Cyber Security for a Smart Grid” **6<sup>th</sup> IEEE POWER INDIA International Conference 2014 (PICON 2104)** pp.
22. **T. Halder**, “A Comparative Study of the Hard & Soft Switching of the Flyback Converters” **6<sup>th</sup> IEEE POWER INDIA International Conference 2014 (PICON 2104)** pp.
23. **T. Halder**, “An Elimination Technique of Cross Regulations in the Flyback Converters” **6<sup>th</sup> IEEE International Conference on Power Electronics (IICPE 2014)** pp.
24. **T. Halder**, “PI Controller Tuning & Stability Analysis of the Flyback SMPS” **6<sup>th</sup> IEEE International Conference on Power Electronics (IICPE 2014)** pp.

25. **T. Halder**, “A Practice of Power Paste with the Isolated Flyback Converters” **6<sup>th</sup> IEEE International Conference on Power Electronics (IICPE 2014) pp. 1-6.**
26. **T. Halder**, “A Hybrid Optimization Technique of Wind Power Exploration & Utilization” **6<sup>th</sup> IEEE International Conference on Power Electronics (IICPE 2014) pp. 1-6.**
27. **T. Halder**, “An Assessment of the Power Quality” 2015, **IEEE Third International Conference Computer, Communication, Control and Information Technology pp. 1-6.**
28. **T. Halder**, “An Improved Performance Analysis of The Microgrid Integration for The Un-Interrupted Power” IEEE, International conference in energy, power & environment (ICEPE)-2015, pp.1-6
29. **T. Halder**, “Power Factor Improvement of the Flyback Converters Using the Leakage Energy Recovery Technique” IEEE, International conference in energy, power & environment (ICEPE)-2015, pp.1-6
30. Gourav Mitra, Anirban Biswas, Krishnendu Ghosh, Gobinda Hansda, Somnath Naskar, Kuntal Sarkar, Subhadip Dey, Sharat Roy, Subhadip Maji, Priyanka Banerjee, **T. Halder**,” An Improved Performance Analysis of The Boost Converters” , India Conference (INDICON), 2015 Annual IEEE, 2015, pp. 1-6.
31. **T. Halder**, “An Improved Performance Analysis of the Buck Converters”, India Conference (INDICON), 2015 Annual IEEE, 2015, pp. 1-6.
32. **T. Halder**, “A Reliability Prediction of The Flyback SMPS”, India Conference (INDICON), 2015 Annual IEEE, 2015, pp. 1-6.
33. **T. Halder**, “Power density & thermal limits of the flyback SMPS” 2016 IEEE First International Conference on Control, Measurement and Instrumentation (CMI). IEEE CMI, 2016, **pp, 1-5.**

34. Sampad Acharya, Rudranil Ghosh, and **T. Halder**, “An Adverse Effect of the Harmonics for the Power Quality Issues” IEEE, ICCTICT 2016, pp. 569-574.
35. Rudranil Ghosh, Sampad Acharya, and **T. Halder**, “An improved performance parameters evaluation of the diode rectifiers”, IEEE, ICCTICT 2016, pp. 563-568.
36. **T. Halder**, “A Flyback Converter Topology Selection Criterion for the Practical Engineer”. IEEE, Power Electronics (IICPE), 2016 India International Conference on pp.1-6.
37. **T. Halder**, “A Maximum Power Point Tracker (MPPT) Using the Incremental Conductance (INC) Technique”, IEEE, Power Electronics (IICPE), 2016 India International Conference on pp.1-6.
38. **T. Halder**, “An Improved Modelling of the Flyback Converters Based on the Switching Frequency”, IEEE, Power Electronics (IICPE), 2016 India International Conference on pp.1-6.
39. **T. Halder**, “A Smart Solar Power Cultivation Using the Flyback Converter & Multi-Level Inverter”, IEEE, Power Electronics (IICPE), 2016 India International Conference on pp.1-6.
40. **T. Halder**, “The Choice of Controllers For the Flyback Converters as Real Time Optimizations”, IEEE, Power Electronics (IICPE), 2016 India International Conference on pp.1-6.
41. **T. Halder**, “A Comparative Study of Control Strategies for The Flyback SMPS”. IEEE, Power Electronics (IICPE), 2016 India International Conference on pp.1-6.
42. **T. Halder**, “The Cross Border Power Trading for Humanity & Friendship”, IEEE PIICON 2016, 7th Power India International Conference November 25-27, 2016, pp.1-6.
43. **T. Halder**, “A Topology Selection: An Isolated Flyback Converter”, “The Cross Border Power Trading for Humanity & Friendship”, IEEE

- PIICON 2016, 7th Power India International Conference November 25-27, 2016, pp.1-6.
44. Asit Kumar Mondal, Satyajit Saha, **T Halder**, “A MPPT Algorithm for the Wind Power Harvesting Using the Matrix Converter” **IEEE DevIC-2017, pp. 153-158.**
  45. **T. Halder**, “An Improved Design Guideline of the PWM Flyback Converter for the Practical Engineer”. **IEEE DevIC-2017, pp. 221-226.**
  46. **Sampad Acharya, Sayan Koley and T. Halder**, “A Prudential Modeling of the ZigBee Networking Platform for the Smart Communications”, **IEEE DevIC-2017, pp. 6-11.**
  47. **Dipankar Halder, Prasenjeet Biswas , T.Halder & Pradip Kumar Das**, “An Improved Aerodynamic Modeling of the Wind Turbine for the Wind Power Harvesting” , India Conference (INDICON), 2017 Annual IEEE, 2017, pp. 1-6.
  48. **Prasenjeet Biswas , Dipankar Halder & T.Halder** , “An Improved Aerodynamic Modeling of the Wind Turbine for the Wind Power Harvesting” , India Conference (INDICON), 2017 Annual IEEE, 2017, pp. 1-6.
  49. **T.Halder**, “Selection of Switching Skills of the Power MOSFET in the Static Converter”, India Conference (INDICON), 2017 Annual IEEE, 2017, pp. 1-6.
  50. **T.Halder**, “A Robust Modeling of the Switching Personality of the MOSFET for the Inductive Load”, India Conference (INDICON), 2017 Annual IEEE, 2017, pp. 1-6.
  51. Writwik Balow, Parijat Sain, Anindya Chatterjee, **T. Halder**, “An Improved Technique of Wind Power Harvesting With a Doubly Fed Induction Generator (DFIG)”, 8th IEEE Power India International Conference, IEEE PIICON 2018.

52. Ishan Biswas, Bireshwar Das, Writwik Balow, **T. Halder**, "Probability of the Pure Sine Wave in the Power Quality Issues" 8th IEEE Power India International Conference, IEEE PIICON 2018.
53. **T. Halder**, "An Impact of the Voltage & Current Ripples in the Power Stages of the Boost Converter" The 2018 IEEE Electron Device Kolkata Conference, EDKCon, 2018, pp.
54. Writwik Balow, **T. Halder**, "A Selective Harmonic Elimination (SHE) Technique For the Multi-Leveled Inverters", The 2018 IEEE Electron Device Kolkata Conference, EDKCon, 2018, pp
55. Sayan Koley, **T. Halder**, "A Smart Modeling & Simulation of the Single Ended Primary Inductor Converter (SEPIC)" 8th IEEE International Conference on Power Electronics (IICPE-2018), pp. 1-6.
56. **T. Halder**, "Power Loss Modeling of the Semiconductors Using the Flyback Converters" 8th IEEE International Conference on Power Electronics (IICPE-2018), pp. 1-6.
57. **T. Halder**, "An Improved Soft Switched Boost Power Converter Suitable for Power Factor Correction", 8th IEEE International Conference on Power Electronics (IICPE-2018), pp. 1-6.
58. **T. Halder**, "An Improved Power Loss Modeling of the MOSFET Using the Flyback SMPS", 8th IEEE International Conference on Power Electronics (IICPE-2018), pp. 1-6.
59. **T. Halder**, "An Effect of the Electromagnetic Compatibility (EMC) in the Flyback Converters", 8th IEEE International Conference on Power Electronics (IICPE-2018), pp. 1-6.
60. R Das Adhikary, W Balow, **T Halder**, "Diode & Neutral Point Clamped Five-Level Inverter For the Power Quality Issues, IEEE DevIC 2019, pp. 474-479.
61. **T Halder**, "An Impact of Current & Voltage Harmonics in the Power Quality Issues" IEEE DevIC 2019, pp. 418-423.



62. **T Halder**. "A Simple Exploratory Power Loss Modelling of the Flyback SMPS", 16th IEEE INDICON 2019, pp. 1-6.
63. **T Halder**, "Effects & Symptoms of the Harmonics of the Diode Rectifier in the Power Quality Issues" 9TH IEEE POWER INDIA INTERNATIONAL CONFERENCE, 1-6.
64. **T Halder**, "State Space Modeling and Stability Analysis of the Flyback Converter 9 TH IEEE POWER INDIA INTERNATIONAL CONFERENCE, "pp. 1-6.
65. **T Halder**, "Cross Border Electricity Trading Policy of Power India for Humanity & Amity", 17th IEEE India Council International Conference (INDICON), 2020, 1-6.
66. **T Halder**, "Harmonic Analysis of the Trapezoidal Waves in the Power Quality Issues", 17th IEEE India Council International Conference (INDICON), 2020, 1-6.
67. **T Halder**, "Geometry of the Power Flow and Harmonic Analysis With the Lissajous Figures", International Conference on Sustainable Energy and Future Electric Transportation, SefeT, 2021, pp. 1-8.
68. **T Halder**, "Hard and Soft Switching Geometries For Operations of the MOSFET Used For the SMPS", 2021 Devices for Integrated Circuit (DevIC), pp. 1-6.
69. **T Halder**, "Suitability of the Static Converters For the Power Factor Correction (PFC)" 2021 Devices for Integrated Circuit (DevIC), 7-12.

#### **INTERNATIONAL CONFERENCE (Non- IEEE):**

1. S. S. Saha, B. Majumdar, **T. Halder** and S. K. Biswas, "A Comparison between MOSFET and IGBT used in ZVS/ZCS phase shift PWM converter", **PEITISCON-2005, pp. 204-209.**

2. **T. Halder**, “Reliability of the Flyback Converter” **ICCS-2013** at Burdwan University, Burdwan, West Bengal, India, **pp. 205-209**.
3. **T. Halder**, “ An Unique Study of the Unit Commitment For the Optimal Cost of the Power Generation” 2019, International Conference on Emerging Technologies for Sustainable Development - **ICETSD '19**, pp. 1-6.

#### **NATIONAL CONFERENCE:**

1. S. S. Saha, B. Majumdar, **T. Halder** and S. K. Biswas, “A MOSFET-IGBT Hybrid converter with improved efficiency using ZV-ZCS”, **NPEC-2005, IIT Kharagpur, India, 2005, pp. 370-373**.
2. **T. Halder**, S. S. Saha, B. Majumdar, and S.K.Biswas, “An Empirical Method to predict currents in a 1-phase Diode rectifier with capacitor filter and static converter load”, **NPEC-2005, IIT, Kharagpur, India, 2005, pp. 261-264**.
3. **T. Halder**, “Some New Techniques and Implementation of Power Factor Improvement of Distribution and Transmission Networks”, National Conference on Recent Development in Electrical Engineering, NCRDEE-2011, organized by the Institution of Engineers (I) NBCL, **pp. 19-22**.
4. **T. Halder**, “A New Simple Hybrid Analysis and Design of Soft Switching Snubber of Generic Power Converters and Protection Scheme”, National Conference on Recent Development in Electrical Engineering, NCRDEE-2011, organized by the Institution of Engineers (I) NBCL, 2011 **pp. 1-5**.

5. **T. Halder**, “Some New Loss reduction Techniques of Distribution and Transmission Networks in Power System”, National Conference on ENERGY SYSTEM PLANNING IMPLEMENTATION AND OPERATION, ESPIO-2011, organized by IEEE Calcutta Section, 2011, **pp. 38-43.**
6. **T. Halder**, “A New Simple Hybrid camp circuit for Generic Power Converters and Protection scheme”, ENERGY SYSTEM PLANNING IMPLEMENTATION AND OPERATION, ESPIO-2011, organized by IEEE Calcutta Section, 2011, **pp.70-73.**
7. **T.Halder**, “Advanced Quasi-Resonant Zero-Voltage Switching Flyback Converters”, **CALCON11 organized by IEEE Calcutta Section, 2011, pp. 102-105.**
8. **T.Halder**, “Best Practices of Power Loss Allocation in Power System” National conference on Recent Trends in Communication Measurement & Control, CMC-2012, organized by the Institution of Engineers (I) **pp. 47-51.**
9. **T.Halder**, “Recent trends of High Voltage Direct Current (HVDC)” National conference on Recent Trends in Communication Measurement & Control, CMC-2012, Organized by the Institution of Engineers (I) **pp. 52-59.**
10. **T.Halder**, Wind Power Generation and Synchronization to Utility Grid” Control, Communication & Device Electronics (N3CD-2013) sponsored by AICTE **pp. 244-250.**
11. **T.Halder**, “Power Quality Issues–A Case Study” Control, Communication & Device Electronics (N3CD-2013) sponsored by AICTE, **pp. 251-255.**
12. **T.Halder**, “COMFORTABLE APPAREL USING SOLAR POWER MODULE” 2<sup>ND</sup> NATIONAL CONFERENCE ON EMERGING TRENDS

IN TEXTILE, FIBRE & APPAREL ENGINEERING” 2013 Organized by Department of Textile Technology, Government College of Engineering & Textile Technology, Berhampore, Murshidabad, West Bengal. Sponsored by Phase II (TEQIP II) **pp. 263-266.**

13. Kapil Biswas., Shirsendu Lahahiri, Sourav Das, **T. Halder,**”A Trading of Carbon Credits & Green House Gas (GHG) Certificates HIT & TEQIP-II Sponsored, pp.13-13.
14. Kapil Biswas., Shirsendu Lahahiri, Sourav Das, **T. Halder.** “A Maximum Power Point Tracker For The Solar Energy Harvesting” HIT & TEQIP-II Sponsored, pp.12-12.

#### **National Seminar:**

1. **T.Halder,** “Traditional Defects of Welding and Remedial Techniques Using the Boost Converter Power Supply Welding Engine” **RAME-2013,** Proceedings of TEQIP Phase-II, at **Government College of Engineering & Textile Technology Berhampur, Murshidabad, West Bengal, India pp.144-148.**
2. **T.Halder,** “A Simple Mechanics of an Electric Train Movement” **RAME-2013,** Proceedings of TEQIP Phase-II, at **Government College of Engineering & Textile Technology Berhampur,** Murshidabad, West Bengal, India **pp.155-158.**

#### **WORK SHOP ORGANIZED/ COURSES / NATIONAL SEMINAR** **/SYMPOSIUM ATTENDED**

1. A Work Shop on “Small Transformer, Resistance and Motor Winding, 23- 28 March organized by Electrical Engineering, Kalyani Government Engineering College, 2009 under (TEQIP) as a work shop organizer & Co-coordinator.

2. A two -week course on “House wiring” organized by Electrical Engineering, Kalyani Government Engineering College, 2009 under (TEQIP) as a work shop organizer & Co-coordinator.
3. A Program on “Pedagogy” under (TEQIP) organized by Kalyani Government Engineering College, 2009.
4. Two -day ISTE program on Aakash for Education Conducted by Indian Institute of Technology Bombay (IITB) on 10<sup>th</sup> & 11<sup>th</sup> November, 2012. This workshop was held under the national mission of Education through ICT (MHRD).
5. Two -day ISTE Program on Database Management System (DBS) Conducted by Indian Institute of Technology Bombay (IITB) from 21<sup>st</sup> & 31<sup>st</sup> May, 2013. This workshop was held under the national mission of Education through ICT (MHRD).
6. Two-day ISTE Program on Analog Electronics Conducted by Indian Institute of Technology Khragpur (IITKGP) from 4<sup>th</sup> & 14<sup>th</sup> June, 2013. This workshop was held under the national mission of Education through ICT (MHRD).
7. AICTE Sponsored Staff Development Programme on the “ Optimization of Decision Tools using Soft Computing Models & MATLAB” from 30<sup>th</sup> Jan. 2012 to 10<sup>th</sup> Feb. 2012, organized by Department of Information Technology, Kalyani Government Engineering College.
8. AICTE Sponsored Staff Development Programme on “Soft Computing Approach in the Field of Medical Image Processing from 23<sup>rd</sup> December, 2013 to 24<sup>th</sup> December, 2013, organized by the Department of Information Technology (IT), Kalyani Government Engineering College.
9. AICTE Sponsored Staff Development Programme on “Soft Computing Approach in Cryptography from 17<sup>th</sup> June. 2012 to 28<sup>th</sup> June, 2013,

organized by Department of Information Technology, Kalyani Government Engineering College.

10. AICTE Sponsored Faculty Development Programme (FDP) on “Embedded Systems and its Application in Real life Problem held at Kalyani Government Engineering College during 21<sup>st</sup> October-2<sup>nd</sup> November, 2013.
11. AICTE Sponsored two weeks Winter School Programme on “Soft Computing Approach in Pattern Reorganization, Image Processing and Matlab from 18<sup>th</sup> January to 30<sup>th</sup> January, 2015, organized by Department of Information Technology, Kalyani Government Engineering College.
12. One day seminar Program on Nordic Business, 2013 organized by Indian Chamber of Commerce (ICC).
13. Two- Day orientation programme on “**Outcome Based Accreditation**” conducted by NITTR, Kolkata from 31 July 2015 to 1 August 2015.
14. Two-day seminar on VLSI & Nano Technology organized by IEEE Kokata section from 24-08-2015 to 25-08-2015.

**COMPUTER PROFICIENCY IN TECHNICAL AREA:**

- Language Known: MATLAB-Programming, C, Assembly level Language.

**TECHNICAL SOFTWARE PACKAGE KNOWN:**

MATLAB-, PSIM, OrCad Release, Circuit Maker, & PSpice

**UNDER GRADUATE PROJECT SUPERVISED:**

- Charge Controller using Matlab & Hardware
- Solar Battery Charger using Matlab & Hardware
- Smart & Hybrid Power System Using PSIM Software
- Power Conditioner
- Power System

**POST GRADUATE PROJECT SUPERVISED:**

- RENEWABLE ENERGY
- POWER QUALITY ISSUE
- MICROGRID
- POWER CONDITIONER
- HYBRID OPTIMIZATION
- Z-SOURCE INVERTER
- POWER FACTOR CORRECTION
- MULTI-LEVEL INVERTER

**Date:**

**Name: Dr. Tapas Halder**

**Sd/-**

**Signature**