

**Dr.S.TITUS, B.E., M.E., Ph.D., MISTE., SMIEEE., MIE.,**  
Professor  
Department of Electrical and Electronics Engineering  
K.Ramakrishnan College of Engineering, Trichy-621112  
Email : [drs.titus1@gmail.com](mailto:drs.titus1@gmail.com)  
Contact No: 9443690147

---

**Academic & Research Qualification:**

**July 2004 – June 2009** : **Doctor of Philosophy**  
*Soft Computing Techniques* for Power System problems  
from the Faculty of Electrical Engineering, Anna University Chennai.

**July 2000- Dec 2001** : **Master of Engineering**  
*Power Electronics and Drives* with First Class,  
Shanmuga College of Engineering, Bharathidhasan University,  
Tanjavur.

**Aug 1993 – Apr 1997** : **Bachelor of Engineering**  
*Electrical and Electronics Engineering* with First Class.  
Sathyabama Engineering College, Madras University, Chennai.

**Reorganized Research Supervisor for Ph.D/M.S Research Work by Anna University Chennai:**

**Supervisor Recognition No: 1730261**

**No of Ph.D produced : 06**

**No of Scholars doing Ph.D.: 06**

**Professional Association:**

- Life Member of Indian Society for Technical Education (ISTE- LM37286)
- Senior Member of Institute of Electrical and Electronics Engineering(SMIEEE-92025358)
- Member of Institute of Engineers (MIE- M-143709-1)

### **Work Experience:**

1. **May 1997 to July 2000**, Worked as a Tutor and Hardware Engineer in m/s CMTES Informatics Limited, Trichy.
2. **June 2002 to July 2007** Worked as a Lecturer in Department of Electrical and Electronics Engineering, Kumaraguru College of Technology, Coimbatore.
3. **July 2007 to March 2010**, Worked as a Senior Lecturer in Department of Electrical and Electronics Engineering, Kumaraguru College of Technology, Coimbatore.
4. **April 2010 to 13<sup>th</sup> July 2018**, working as a Professor & Head in Department of Electrical and Electronics Engineering, M.A.M College of Engineering, Siruganur, Tiruchirappalli-621 105.
5. **July 16<sup>th</sup> 2018 to Till Date**, working as a Professor in Department of Electrical and Electronics Engineering, K.Ramakrishnan College of Engineering, Samayapuram, Tiruchirappalli-621 112.

### **Papers Published In International Journals:**

1. **Titus S., and Ebenezer Jeyakumar A.**, (2007), “Hydrothermal scheduling using an improved particle swarm optimization technique considering prohibited operating zones”, International Journal of Soft Computing, **Medwell Journals.**, Vol. 2, No. 2, pp. 313-319.
2. **Titus S., and Ebenezer Jeyakumar A.**, (2008a), “A Hybrid EP-PSO-SQP algorithm for dynamic dispatch considering prohibited operating zones”, Electric Power Components and Systems., (Taylor and Francis), Vol. 36, No. 5, pp. 449-467.
3. **Titus S., and Ebenezer Jeyakumar A.**, (2008b), “Simulated Annealing based hybrid optimization approach for unit commitment problem considering prohibited operating zones”, in **InSINET** Journal.
4. **Titus S., Victoire T. A. A., and Ebenezer Jeyakumar A.**, (2008c), “Dynamic dispatch considering prohibited operating zones using hybrid computational algorithms”, Paper published in the Association for the advancement of modelling and simulation techniques in enterprises (AMSE) journal, Vol 29.Issue1, No.1-2.
5. **Titus S and Edwin Jose S**, (2012) “Detection and Classification of Power Quality using Adaptive Decomposition Structure and Neural Network”, **European Journal of Scientific Research (EJSR)**, Euro Journals, Vol. 89, No. 3, Oct 2012, pp. 477-489.
6. **Titus S and Nishanth**, “Frequency Control Scheme Using Integrated Grid Inverter for Wind Mill Applications” **International Journal of Innovative Technology and Research (IJITR)**, Vol. 1, No.1, Jan 2013, pp. 074-078.
7. **Titus S and Vinoth Babu**, “Power System Stability Enhancement under Three Phase Fault with FACTS Devices TCSC, STATCOM and UPFC” **International Journal of Innovative Technology and Research (IJITR)**, Vol. 1, No.1, Jan 2013, pp. 066-073.
8. **Titus S and Vinoth Babu**, “Power System Stability Enhancement under Three Phase Fault with FACTS Devices” **International Journal of Scientific and Research Publications**, Volume 3, Issue 3, March 2013, pp. 01-06. ISSN 2250-3153.

9. **Titus S and Nishanth**, “Frequency Control Scheme Using Integrated Grid Inverter for Wind Mill Applications” **International Journal of Scientific and Research Publications**, Volume 3, Issue 3, March 2013, pp. 01-05, ISSN 2250-3153.

10. **Titus S and Anand J.V**, “Analysis of Depth Based Routing Protocols in Under Water Sensor Networks” **International Review on Computers and software (IREOCS)**, Volume. 8, No.10, October 2013, pp.2389-2402. **Annexure-2**

11. **Titus S and Pandiyan R**, “Intelligent control systems to improve the performance of PMDC Motor Drives” published in the Association for the advancement of modelling and simulation techniques in enterprises (AMSE) journal, Vol.69, No.01, July 2014, pp.69-84. **Updated Annexure.**

12. **S.Titus** and P.Ramprakash, “Performance Evaluation of Nine-level modified cascaded symmetric inverter with different PWM techniques” International journal of Advance Research and Innovation, (IJARI-2015), March 2015. pp.45-50, ISSN 2347-3258.

13. **Titus S** and Anand J.V, “Energy Efficiency Analysis of Effective Hydro cast for Underwater Communication” in International Journal of Acoustics and Vibration, vol.22, No.1, pp.1-9, (IJAV) 1027-5851(**SCIE Indexed**) **March 2017. Annexure-1**

14. **S.Titus and Ramprakash** “FPGA Based Performance Evaluation of Nine-Level Modified Cascaded Symmetric Inverters with Different PWM Techniques” Accepted in Journal of Electrical Systems (JES). November 2015. **Annexure-1**

15. **S.Titus and S.Edwin Jose** “A level Dependent Sources Concoction Multilevel Inverter Topology with Reduced Number of Power Switches” in Journal of Power Electronics, Vol. 16, No. 4, pp. 1316-1323, July2016, ISSN(Print): 1598-2092 / ISSN(Online): 2093-4718. (**SCIE Indexed**) **Annexure-1**

16. Anand JV & **Titus S** “Underwater Routing protocols for Funneling Effect and Energy Holes Avoidance”, Asian Journal of Information Technology, Vol.15, No. 19, pp. 3649-3656,2016. (**Scopus Indexed**) E ISSN 1993-5994.Updated Annexure-1-2016

17. Anand JV & **Titus S** 2016 “Combating Communication Void Avoidance with internetworking in Underwater Sensor Networks”, in IJACT: International Journal of Advancements in Computing Technology. vol.8, no.2, pp. 30-41(**Scopus Indexed**),**2014 Annexure-2.**

18. Sundar Raj A & **Titus S** “High Performance and Energy Efficient SRAM- based Architecture for TCAM” in International Journal of Printing, Packaging & Allied Sciences, Vol. 4, No. 2, pp. 1090-1100, December 2016.

19. Sundar Raj A & **Titus S** “Integrated Energy Efficient MIMO-AF System” in International Journal of Printing, Packaging & Allied Sciences, Vol. 4, No. 2, pp. 1101-1108, December 2016.

20. **S.Titus and S.Edwin Jose** “A Stipulation Based Sources Insertion Multilevel Inverter (SBSIMLI) for Waning the Component Count and Separate DC Sources” in Journal of Electrical Engineering and Technology, Vol. 12, No. 4, pp. 1519-1528, July2017, ISSN(Print): 1975-0102/ ISSN(Online): 2093-7423. (**SCIE Indexed**) **Annexure-1**

- 21. Titus.S & Rajalakshmi.S** “FITF-PDM: Unified controller design for non-isolated bidirectional DC-DC converter” International Transactions on Electrical Energy Systems (**John Wiley & Sons**), Vol.28, Issue.3, pp.1-19, December 2017. (**SCIE Indexed**) **Annexure-1**
- 22. S.Titus and S.Edwin Jose** “An zig-zag concated double rung h-bridges based multilevel voltage source inverter structure” in Journal of Electrical Engineering, Vol. 18, No. 1, pp. 01-08, March 2018, (**SCI Indexed**) **Annexure-1**
- 23. Joshua Arul Kumar R, Titus S and Janet B** “A novel and efficient classifier using spiking neural network” The Journal of Supercomputing, **Vol.76** , Issues 9, pp. 6545-6560, May 2019, (**SCIE Indexed**) **Annexure-1**
- 24. Titus S, Sangeetha E.P, and Ilango R** “Performance Analysis of PV System for MPPT Using Harmony Search Algorithm” International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering, Vol. 7, Issue 6, pp. 19-24, June 2019,
- 25. P. Ramprakash, S.Titus** “MSPWM and MTPWM Techniques for Harmonic Elimination in Modified Cascaded Inverter” International Journal of Advanced research in Electrical, Electronics and Instrumentation Engineering,(IJAREEIE), Vol. 5, Special Issue 7, pp.01.-08, April 2016.
- 26. S.Edwin Jose, S.Titus** “Detection of Power Quality Disturbances Using Wavelet Transform Analysis” International Journal of Advanced research in Electrical, Electronics and Instrumentation Engineering, (IJAREEIE), Vol. 5, Special Issue 7, pp.165.-174, April 2016.
- 27. Dr.S.Titus, G.Gabriel Santhosh Kumar, Dr.R.Ilango** “A Modeling And Simulation of Bidirectional Converter For Solar Powered Refrigeration System” International Journal of Scientific & Technology Research Volume 9, Issue 03, pp. 3653-3658, March 2020. ISSN 2277-8616.
- 28. Dr.R.Ilango, Dr.S.Titus, Mr.G.Gabriel Santhosh Kumar** “ High Voltage DC Generator For Insulation Testing Using Step up Converter and Voltage Multiplier” International Journal of Scientific & Technology Research Volume 9, Issue 04, pp. 1270-1273, April 2020.
- 29. Titus Sigamani, Ram Prakash Ponraj,** “Modified Multi-Level Boost Inverter for Hybrid Energy Systems” International Journal of Scientific & Technology Research Volume 9, Issue 04, pp. 554-558, April 2020.
- 30. S. Rajalakshmi , Dr S.Titus** “Optimal Slewing Mode Converter-based Energy Management System for Renewable Energy sources” International Journal of Advanced Trends in Computer Science and Engineering, Volume 9, No.3, pp. 2493 – 2502, May – June 2020.
- 31. Titus Sigamani, Ram Prakash Ponraj, Vijay Ravindran** “Modified Single Phase Matrix Converter with Z-Source for Renewable Energy Systems” published in IEEE Explorer, Third International Conference on Smart Systems and Inventive Technology (ICSSIT 2020), **DOI: [10.1109/ICSSIT48917.2020.9214138](https://doi.org/10.1109/ICSSIT48917.2020.9214138)**, pp. 601-607, 6<sup>th</sup> October 2020.

32. A.Jamuna, R.Jemima Priyadarsini and **S.Titus** “Survey on Predictive Analysis of Diabetes Disease Using Machine Learning Algorithms” International Journal of Computer Science and Mobile Computing, Volume 9, Issue 10, pg. 19 – 27, October 2020.

33.Ram Prakash Ponraj, **Titus Sigamani**, “ A novel design and performance improvement of symmetric multilevel inverter with reduced switches using genetic algorithm” published in International Journal of Soft Computing, Springer Publication, **Volume 25, Issue 06, pp. 4597 - 4607, March 2021.**(published online in 25<sup>th</sup> November 2020), DOI 10.1007/s00500-020-05466-7.

34. C. Linda Hepsiba, Dr. R. Jemima Priyadarsini, **Dr. S.Titus**, “A Comprehensive Study on Routing Attacks with Counter measures in Internet of Things” Solid State Technology, Volume 63, Issue 4, pp.7993-7999, December 2020.

35. Ram Prakash Ponraj, Titus Sigamani, Vijayalakshmi Subramanian, “A Developed H-Bridge Cascaded Multilevel Inverter with Reduced Switch Count” International Journal of Electrical Engineering & Technology, Springer Publication, **Volume 16, Issue 03, pp. 1445 - 1455, (Published online February 2021), May 2021.** <https://doi.org/10.1007/s42835-021-00680-1>.

36. S. Titus, S. Rajalakshmi and G. G. Santhosh Kumar, "Optimal Sliding Mode Converter with Energy Management System for Hybrid Electric Vehicle," 2021 International Conference on Advances in Electrical, Computing, Communication and Sustainable Technologies (ICAECT), Bhilai, India, April 2021, pp. 1-12, doi: 10.1109/ICAECT49130.2021.9392466.(IEEE Explorer)

### **Papers Published In National and International conferences:**

1. **S.Titus et, al** “A High frequency energy efficient single phase wet type open well submersible monoset motor-pump system using efficient controller” national conference on power conversion and industrial control, NSS college of engineering palaghat, January 2003. Conference proceedings.

2. **S.Titus et, al** “Fuzzy logic based drive for single phase monoset pump with energy efficient operation” conference on Recent trends in industrial electronics, drives and controls, march 22-23, 2003, Annamalai university. Conference proceedings.

3. **S.Titus et, al** “An Accurate fast response PC based weld monitoring system for industrial application” conference on Recent trends in industrial electronics, drives and controls, march 22-23, 2003, Annamalai university. Conference proceedings.

4. **S.Titus, T.M Kameswaran** “To improve the performance of power generation of wind mill farms” July 15<sup>th</sup> to 17<sup>th</sup> 2004, national conference on Energy management to meet the challenges of energy requirements, Kumaraguru College of technology, Coimbatore. Conference proceedings.

5. **S.Titus, A. Ebenezer Jeyakumar** “Optimal Load Shedding using Fuzzy Logic in an Integrated Grid” NCEIS 2005, 9<sup>th</sup> & 10<sup>th</sup> March 2005, Government College of technology, Coimbatore 13. Conference proceedings.

6. **S.Titus et, al** “Response of AGC to a fuzzy controller in an Inter-connected system after deregulation” in Academic open Internet Journal.

7. **S. Titus and S.P. Suresh Kumar** “Design of an Energy efficient low power Wind Turbine system” INCOT 07, Karunya University, Coimbatore, 31<sup>st</sup> March 2007
8. **S.Titus and T. Madhan kumar** “Direct Torque control of induction motor with torque ripple minimization using fuzzy logic control” PSNA Engineering College, January 2008.
9. **S.Titus and A.Gowri Shankar** “A General PWM Strategy for Four-Switch Three Phase Inverter” NCACCA-09 at KSR College of Technology, April 2009.
10. **S.Titus and S.Edwin Jose** “Modified Wavelet Transform Combined Neural Network for detection and classification of power quality disturbance” IPECS-2011, 18<sup>th</sup> & 19<sup>th</sup> March 2011.
11. **S.Titus and G.Anbalagan** “Green Power Zone” in Innovations in power Electronics Controls and Systems, conference proceedings, pp-378- 383-IPECS-2011, 18<sup>th</sup> & 19<sup>th</sup> March 2011.
12. **S.Titus and N.Sivasankar,**” Simulation of Switched-Capacitor Structure for Transformer less DC–DC Buck-Boost converters” International conference on Advances in Engineering and Technology, E. G. S. Pillay Engineering College, Nagapattinam, proceedings, 27<sup>th</sup> & 28<sup>th</sup> May 2011.
13. **S.Titus and Nishanth,** “Frequency Control Scheme Using Integrated Grid Inverter for Wind Mill Applications” conference proceedings, pp-49- 53-IPECS-2012, 16<sup>th</sup> & 17<sup>th</sup> March 2012.
14. **S.Titus and Vinoth Babu,** “Power System Stability Enhancement under Three Phase Fault with FACTS Devices TCSC, STATCOM and UPFC” conference proceedings, pp-36-44-IPECS-2012, 16<sup>th</sup> & 17<sup>th</sup> March 2012.
15. **S.Titus and S.Edwin Jose,** “Classification of Power Quality Disturbance Using Combined Adaptive Decomposition Structure and Neural Network” conference proceedings, pp-98-105-IPECS-2012, 16<sup>th</sup> & 17<sup>th</sup> March 2012.
- 16.**S.Titus and N.Rajalakshmi,** “New Zero Current Transition PWM DC/DC Converter without Current Stress” IEEE-International Conference on Advances in Engineering, Science and Management (ICAESM-2012),IEEE Xplore, 30<sup>th</sup> and 31<sup>st</sup> March 2012, pp-566-570.
17. **S.Titus and S.Edwin Jose,** “Detection and Recognition of Power Quality Disturbances Using Lifting Wavelet Transform” International Conference Engineering and Applied science (EAS 2012), 27<sup>th</sup> -29<sup>th</sup> December 2012, Colombo, Sri Lanka, pp. 35-41.
18. **S.Titus and Pandiyan,** “Reliability Issues on Grid Connected Wind Energy System” International Conference on Renewable Energy Utilization (ICREU-2014), January 08-10, 2014, pp. 437- 440.
- 19.**Titus S and Anand J.V,** “Regression based analysis of effective hydrocast in underwater environment” TENCON 2014 - 2014 IEEE Region 10 Conference, Bangkok, 22-25 Oct. 2014, pp. 1 – 6, ISSN :2159-3442

20. **S.Titus and Ramprakash**, “Performance Evaluation of Nine-level modified cascaded symmetric inverter with different PWM techniques” International Conference on Electrical Information and Communication Technology, (ICEICT-2015), 6<sup>th</sup> & 7<sup>th</sup> March 2015.

21. **S.Titus and Abinaya** “Enhancement of Life of storage battery used for stand Alone PV System using high gain High efficiency converter” International Conference on IPECS-2016, (22<sup>nd</sup> March 2016).

22. **S.Titus & Ramprakash** “MPPT Controller Based Wind Driven DC Generator for AC Micro Grid” International Conference on Newer Engineering Concepts and Technology – 2K17, at K. Ramakrishnan College of Technology, during 28<sup>th</sup>- 29<sup>th</sup> March 2017.

23. **S.Titus & Ramprakash** “Modified Single Phase Buck-Boost Matrix Converter with 2-source for wind Power Generation” International Conference on Newer Engineering Concepts and Technology – 2K17, at K. Ramakrishnan College of Technology, during 28<sup>th</sup>- 29<sup>th</sup> March 2017.

24. **Joshua Arulkumar R, Titus S & Janet B** “A Novel and Efficient Classifier using Spiking Neural Network” International Conference on Artificial Intelligence and Computer Vision(AICV 2018) at College of Engineering Guindy (Anna University) during 26<sup>th</sup>- 28<sup>th</sup> September 2018.

25. **Joshua Arulkumar R, Titus S & Janet B** “A Bio Plausible Network Model for Classification of Images” International Conference on Artificial Intelligence, Smart Grid and Smart City Application(AISGSC 2019) at PSG College of Technology, Coimbatore during 4<sup>th</sup>- 5<sup>th</sup> January 2019.

26. **Titus S et al** “Power Quality Analysis on Induction Motor Pumps” International Conference on Innovations in Engineering, Technology and Science(ICIETS-2019) at K.Ramakrishnan College of Engineering, Tiruchirappalli during 21<sup>st</sup> – 22<sup>nd</sup> March 2019.

27. **Titus S et al** “IoT Based Smart Irrigation using Solar Energy” International Conference on Innovations in Engineering, Technology and Science(ICIETS-2019) at K.Ramakrishnan College of Engineering, Tiruchirappalli during 21<sup>st</sup> – 22<sup>nd</sup> March 2019.

28. **Titus Sigamani, Ram Prakash Ponraj, Vijay Ravindran** “Modified Single Phase Matrix Converter with Z-Source for Renewable Energy Systems” Third International Conference on Smart Systems and Inventive Technology (ICSSIT 2020) DVD Part Number: CFP20P17-DVD; ISBN: 978-1-7281-5820-4, pp. 599-605, August 2020.(IEEE Conference).

29. **S.Titus, S.Rajalakshmi and G.Gabriel Santhosh Kumar** “Optimal Sliding Mode Converter with Energy Management System for Hybrid Electric Vehicle” First IEEE International Conference on Advances in Electrical, Computing, Communications and Sustainable Technologies, (ICAECT-2021) 19<sup>th</sup> – 20<sup>th</sup> February 2021. (IEEE Conference).

30. **M.Nivedha, S.Titus**, “Techniques Employed In Renewable Energy Sources Fed Smart Grid - A Comparative Study” TEQIP-III International Online Conference on Smart Grid Energy Systems and Control (SGESC-2021), Organized by Department of Electrical Engineering, National Institute of Technology Kurukshetra (March19-21, 2021).

**PATENT:**

1. Patent published on “**SMART TOILET WITH A CLOSET CLEANER ROBOT**” Application No: 202041034987, CBR No: 26609, Inventors: B.Saravanan, Dr.S.Titus and Mr.S.Bakthavatsalam, Registered on 14.08.2020.

**(Dr.S.Titus)**