

# SRIDHAR SAVARAPU M.Tech., Ph. D. Assistant Professor of EEE & Additional Controller of Examinations

Jawaharlal Nehru Technological University Anantapur

Ananthapuramu – 515 002, Andhra Pradesh,

https://www.jntuacea.ac.in/Sridhar.php

# **Bio-data**

Name : Sridhar Savarapu

**Official Address** : Assistant Professor of EEE

Additional Controller of Examinations,

Examination Branch,

Jawaharlal Nehru Technological University Anantapur

Ananthapuramu – 515 002, Andhra Pradesh (India)

Mobile: 091-8008885179

Mobile:

**Residential Address** : H.No: F1, JNTUA Teaching Staff Quarters(A1 type)

Beside VC Guest House, JNTUA(Old Campus) Ananthapuramu – 515 001 Andhra Pradesh

(India)

**E-mail** : sridharsavarapu.eee@jntua.ac.in,

sridhars avarapu@gmail.com

Nationality : Indian

**Religion** : Hindu

# **Educational Qualifications:**

| S. No. | Qualification | University/Institution   | Specialization                          | Year of award |
|--------|---------------|--|---|---------------|
| 1.     | Ph. D         | JNTU Anantapur   | Power electronics and Industrial Drives | 2023          |
| 2.     | M.Tech        | JNTUH, College of<br>Engineering,<br>Kukatpally,<br>Hyderabad 500085 | Power Electronics                       | 2006          |
| 3.     | B.Tech        | JNTU Hyderabad   | Electrical & Electronics Engineering    | 2003          |

# **Professional Experience:**

| S.No. | Institution/Organization | Position held       | Duration         |  |
|-------|--------------------------|---------------------|------------------|--|
| 1     | JNTUA College of         | Assistant Professor |                  |  |
|       | Engineering, Anantapur   | (Selection Grade)   | 2021 - till date |  |
|       |                          | Department of EEE   |                  |  |
| 2     | JNTUA College of         | Assistant Professor | 2016 - 2021      |  |
|       | Engineering, Anantapur   | (Senior Scale)      |                  |  |
|       |                          | Department of EEE   |                  |  |
| 3     | JNTUA College of         | Assistant Professor | 2011 2016        |  |
|       | Engineering, Anantapur   | Department of EEE   | 2011 – 2016      |  |
|       | ACCENTURE Service        | Coftware Engineer   |                  |  |
| 4     | Pvt,Ltd, Raheja Mind     | Software Engineer   | 2007 - 2011      |  |
|       | Space HITEC City,        |                     |                  |  |
|       | Hyderabad                |                     |                  |  |

**Administrative Experience:** 

| 1 2 WALLES VI WALL V ALLE VI VILLEY |  |                |  |  |
|-------------------------------------|--|----------------|--|--|
| S.No.                               | Administrative Post held                 | Duration       |  |  |
| 1                                   | Additional Controller of Examination-II, | 2024-till date |  |  |
|                                     | JNTU Anantapur                           |                |  |  |
| 2                                   | Project Engineer (Electrical)            | 2023-2024      |  |  |
|                                     | JNTUA College of Engineering, Kalikiri   |                |  |  |
| 3                                   | Additional Controller of Examination-I,  | 2021 – 2023    |  |  |
|                                     | JNTU Anantapur                           |                |  |  |
| 4                                   | Alumni Association Secretery,            | 2020 – 2022    |  |  |
|                                     | JNTUA College of Engineering, Anantapur  |                |  |  |
| 5                                   | Co ordinator for Central Library         | 2010 2022      |  |  |
|                                     | JNTUA College of Engineering, Anantapur  | 2019 – 2023    |  |  |
| 6                                   | Deputy Warden for Ajantha Hostel,        | 2013-2023      |  |  |
|                                     | JNTUA College of Engineering, Anantapur  |                |  |  |
| 7                                   | Assistant Placement Officer,             | 2012 2012      |  |  |
|                                     | JNTUA College of Engineering, Anantapur  | 2012-2013      |  |  |
| 8                                   | Deputy Warden for Ellora Hostel,         | 2012-2013      |  |  |
|                                     | JNTUA College of Engineering, Anantapur  |                |  |  |

The following Seminars / workshops are organized as a Convener / Coordinator. Organized the following programs as Coordinator:

- ❖ Organized two-day National level student symposium on "Electrify your Education" (EYE2K25) on April 4<sup>th</sup> &5<sup>th</sup> 2025 at JNTUA Electrical Dept.
- ❖ Organized two-day National level student symposium on "Electrify your Education" (EYE2K13) on March 14th 2013 at JNTUA Electrical Dept.
- ❖ Organized one day National level student symposium on "Electrify your Education" (EYE2K12) on March 14th 2012 at JNTUA Electrical Dept.

## Placements programs organized as APO:

- Organized One day awareness program on Jump start program being conducted by Wipro, Hyderabad on 6th of March 2012
- ❖ Organized 3 day Pre placement training program for pre final years being conducted by Career Path Solutions Pvt.Ltd, Hyderabad form March 12th to March 14th 2012
- Organized campus recruitment drive being conducted by Nandi Pipes, Nandyal on 16th March 2012
- Organized 3 day Pre placement training program for final years being conducted by Career Path Solutions Pvt.Ltd, Hyderabad form 03-08-2012 to 05-08-2012
- Organized 3 day Pre placement training program for final years being conducted by Career Path Solutions Pvt.Ltd, Hyderabad form 05-09-2012 to 07-09-2012
- ❖ Organized one day workshop on "Employability Skills" on 03-10-2012 for final years of all streams in association with TCS, Hyderabad
- ❖ Conducted Recruitment Drive (Day 1) from 04-10-2012 to 06-10-2012 by inviting TCS, Hyderabad and placed 121 students.

- ❖ Conducted recruitment Drive (Day 2) on 04-12-2012 by inviting Capgemini and placed 43 students
- \* Conducted Recruitment drive by inviting ADP and placed 2 students

Teaching Experience: 14+ years of teaching UG & PG Courses

### **Subjects Taught:**

| Undergraduate courses   | Post graduate courses   |  |
|---|---|--|
| <ul> <li>Power Electronics</li> <li>Principles of digital signal processing (PDSP)</li> </ul>   | <ul><li>Advanced digital signal processing (ADSP)</li><li>Machine Modeling analysis</li></ul>   |  |
| <ul> <li>Distribution of electrical installations</li> <li>Power semiconductor controlled drives</li> <li>Human values and professional ethics</li> <li>Microprocessors and Microcontrollers</li> <li>Renewable energy systems</li> </ul> | <ul> <li>Switched Mode Power Conversion (SMPC)</li> <li>Special Machines</li> <li>Wind energy conversion systems</li> <li>Solid state AC &amp; DC drives</li> <li>Advanced power semiconductor devices</li> </ul> |  |

❖ In addition, the laboratories of UG and PG programs in the areas of Electrical and Computers have been dealt with.

# **Books / Chapters in books Authored:**

- ❖ Sridhar Savarapu, Narri, Y. (2021). Real-Time Implementation of Brain Emotional Controller for Sensorless Induction Motor Drive with Adaptive System. In: Gunjan, V.K., Zurada, J.M. (eds) Modern Approaches in Machine Learning and Cognitive Science: A Walkthrough. Studies in Computational Intelligence, vol 956. Springer, Cham. https://doi.org/10.1007/978-3-030-68291-0\_9
- ❖ Sridhar, S., Junaid, M., Yadaiah, N. (2021). Design and Tuning of Improved Current Predictive Control for PMSM. In: Gunjan, V.K., Zurada, J.M. (eds) Modern Approaches in Machine Learning and Cognitive Science: A Walkthrough. Studies in Computational Intelligence, vol 956. Springer, Cham. <a href="https://doi.org/10.1007/978-3-030-68291-0\_36">https://doi.org/10.1007/978-3-030-68291-0\_36</a>

#### **Patents Published:**

Patent Application Number: 202121043296 A

A Date of Filing of Application: 15-03-2023

Date of Publication of the Patent: 31-03-2023

Title of the Invention: Method and System for Post-Collision Electrical Vehicle

Analysis Using Blockchain Technology

Patent Application Number: 202341017372 A

A Date of Filing of Application: 24-09-2021

Date of Publication of the Patent: 29-10-2021

Title of the Invention: Method and System For Providing Integrated Solutions To

Internet-Of Things (Iot) Based Power Grids

#### **Reviewer of Journals**

- ❖ Journal of Electrical Engineering & Technology, Springer Journal
- Journal of Supercomputing (SUPE), Springer journal
- ❖ Journal of The Institution of Engineers (India): Series B, IEI journal

## Membership of Scientific / Engineering Bodies

- ❖ Senior Member of IEEE (SMIEEE No: 92572851)
- ❖ Member of Institution of Engineers (MIE) (Membership No: M-1532493)

# **Research Experience:**

- A) Publications: Involved in active research in the following fields of Engineering & Technology.
- Power Electronics &Industrial Drives
- Control Systems
- Artificial Neural Networks

Published 50 research papers in various National & International Journals, National & International Conferences, workshops and symposiums.

B) Guiding Research:

M.Tech Level ... Guided 70 M. Tech dissertations.

B.Tech Level ... Guided more than 14 B.Tech project batches.

## Number of Research publications:

International Journals : 40
International Conferences : 08
National Conferences : 01

## List of publications: International Journals:

- ❖ A Fuzzy-based Speed Controller for Dual PMSM Drives fed by A Single Inverter. Harsha Vardhan Rao Sriram, Dr. **Sridhar Savarapu**, Dr. M. Anka Rao Journal of Systems Engineering and Electronics (ISSN NO: 1671-1793) Volume 34 ISSUE 4 2024 DOI:20.14118.jsee.2024.V34I4.1584 (SCOPUS & UGC Care)
- ❖ Solar PV Array fed with Luo converter and Hysteresis control Three Phase Inverter of BLDC Motor Driven Water Pump GANGANABOINA. THIRUPALU & S. SRIDHAR DOI: 10.48047/NQ.2022.20.20.NQ109056.Pages: 535 − 543 Neuro Quantology. (SCOPUS & UGC Care)
- ❖ SRIDHAR SAVARAPU et al/An Advance Repetitive Control Scheme for Adaptive Neuro-Fuzzy Inference Current Control Based Grid-Connected Inverter With Frequency-Adaptive Capability. Neuro Quantology | December 2021 | Volume 19 | Issue 12 | Page 1133-1142 | doi: 10.48047/nq.2021.19.12.NQ21325 (SCOPUS & UGC Care)
- ❖ Sridhar Savarapu, M. Qutubuddin and Y. Narri, "Modified Brain Emotional Controller-Based Ripple Minimization for SVM-DTC of Sensorless Induction Motor Drive," in *IEEE Access*, vol. 10, pp. 40872-40887, 2022, doi: 10.1109/ACCESS.2022.3165651. (SCI and SCOPUS)
- ❖ Sridhar Savarapu\*, Yadaiah Narri (2020) High Performance of Brain Emotional Intelligent controller for DTC-SVM based sensorless Induction Motor Drive. The Journal of Supercomputing(SUPE). Springer publication (SCI and SCOPUS Indexing)
- ❖ M. Ankarao1, G. Pravallika2 & S. Sridhar3(2020) Sensorless Speed Estimation Of Brushless Doubly-Fed Reluctance Generator Using Active Power Based Mras By Pi And Anfis Controller, International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) ISSN(P): 2249−6890; ISSN(E): 2249−8001 Vol. 10, Issue 3, Jun 2020, 6597−6608(SCOPUS)
- ❖ Panchagnula Sai Harish, **S Sridhar**(2019) An Adaptive Neuro Fuzzy Inference System Control For A Bearingless Induction Motor Based On A Disturbance Observer. International Journal of Innovative Technology and Exploring Engineering (IJITEE). ISSN: 2278-3075, Volume-9 Issue-1, November 2019 DOI: 10.35940/ijitee.4448.119119 (SCOPUS)
- Nagaraja Madhurya SeshaKumari 1, **S.Sridhar2**, M.Vijaya Kumar3 (2019) Back-EMF MRAS model of grid-connected DFIG to control stability & robustness, at International Journal of Research and Analytical Reviews (IJRAR). E-ISSN 2348-1269, P- ISSN 2349-5138Volume 6 | Issue 2 | June-2019. (UGC Approved)
- C. Naga Divya1 S. Sridhar2 (2019) Fuzzy Logic-Sliding Mode Direct Power Control Of rushless Doubly Fed Induction Generator Connected To Grid. at International Journal of Research and Analytical Reviews (IJRAR) E-ISSN 2348-1269, P- ISSN 2349-5138.

- Volume 6 | Issue 2 | June-2019. (UGC Approved)
- ❖ Kavya Kutagulla, **Sridhar Savarapu** (2019) Speed Estimation And Stability Analysis of a Surface-Mounted Permanent Magnet Synchronous Motor Using MRAS Controller And The Fuzzy current Controller ,international Journal of Research and Analytical Reviews (IJRAR) E-ISSN 2348-1269, P- ISSN 2349-5138. Volume 6 | Issue 2 | June-2019. (UGC Approved)
- ❖ P. Hemalatha1, S. Sridhar2 (2019) Speed Estimation of Linear Induction Motor Drives from Second Order Sliding Mode Observer and comparison between the PI controller, Fuzzy controller for low speed applications international Journal of Research and Analytical Reviews (IJRAR) E-ISSN 2348-1269, P- ISSN 2349-5138. Volume 6 | Issue 2 | June-2019. (UGC Approved)
- Lavanya, S Sridhar (2019) Sensor less Speed Estimation of an FOC Induction Motor Drive using MRAS Speed Controller and Fuzzy Current Controller. International Journal of Innovative Technology and Exploring Engineering (IJITEE). ISSN: 2278-3075, Volume-8 Issue-10, August 2019 DOI: 10.35940/ijitee.J9878.0881019 (Scopus)
- ❖ Polu Veera Pratap1, S. Sridhar2(2019) Performance Analysis and control strategies of Cascaded Multilevel Converters. IJSRST | Volume 6 | Issue 1 | Print ISSN: 2395-6011 | Online ISSN: 2395-602X DOI : https://doi.org/10.32628/IJSRST1845506 (UGC Approved)
- ❖ S Kishorkumar,, S. Sridhar2 (2019) Modular Multi Level Cascaded H-Bridge Inverter For Grid Connected PV applications. international Journal of Research and Analytical Reviews (IJRAR) E-ISSN 2348-1269, P- ISSN 2349-5138. Volume 6 | Issue 2 | February-2019. (UGC Approved)
- N.Vinod Kumar Yadav, **2S. Sridhar** (2019). Grid Connected Solar Power System Using PWM Strategy with Single Phase Seven Level Inverter. Journal of Emerging Technologies and Innovative Research (JETIR) ISSN: 2349-5162 Published in Volume 6 Issue 4, April-2019 (UGC Approved)
- ❖ 1Syed Aslam Hussain, **2Mr. S.Sridhar** (2019). Photovoltaic Micro-inverter system with PV Current Decoupling Methodology using PID and fuzzy logic controller. Journal of Emerging Technologies and Innovative Research (JETIR) ISSN: 2349-5162Volume 6 Issue 1, January-2019 (UGC Approved)
- Pendela Madhava, S.Sridhar, S.Sunil Naik (2018). Dynamic power allocation for PV-microgrid connected super capacitor- battery by using hybrid energy storage system. Journal of Applied Science and Computations(JASC) ISSN NO: 1076-5131 Volume 5, Issue 10, October/2018. (UGC Approved)
- V. Raja Sekhar\*1, S. Sridhar2, B. Sree Bhavani3 (2018). The Dynamic Load Model for Medium Voltage Cascaded H-Bridge Multi-Level Inverter fed IM Drive System using Fuzzy Logic Controller. International Journal of Scientific Research in Science and Technology (IJSRST) Volume 4 | Issue 2 | Print ISSN: 2395-6011 | DOI: 10.32628/IJSRST184125 (UGC Approved)
- ❖ B. Nishant1, S. Sridhar2, B. Sree Bhavani3(2018) Implementation of Switching Instant Optimization on a Two-Level InverterFed Induction Motor Drive Controlled using MPFC. International Journal of Science, Engineering and Technology Research (IJSETR) Volume 7, Issue 2, February 2018, ISSN: 2278 -7798

- M.Chanakya1,S.Sridhar2 (2017). Self-Tuned NFC and Adaptive Torque Hysteresis-Based DTC Scheme for IM Drive. International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET) Vol. 6, Issue 8, August 2017 DOI:10.15680/IJIRSET.2017.0608314
- Y. M. Anief, S. Sridhar, B. Naresh (2017). Performance analysis of a 4- switch, 3-phase inverter fed induction motor (IM) drive system using ANFIS controller .International Journal for Science and Advance Research In Technology(IJSART) Volume 3 Issue 12 DECEMBER 2017
- ❖ D. Mastan, S. Sridhar, B. Naresh (2017). Direct Torque Control with Sliding mode Feedback Linearization for SVM Inverter Fed Induction Motor Drives. International Journal of Scientific Research in Science, Engineering and Technology (IJSRSET). Volume 3 | Issue 8 | Print ISSN: 2395-1990. DOI: 10.32628/IJSRSET1738127 (UGC Approved)
- ❖ Vykuntam Sandeep, **S. Sridhar**, "Predictive Torque Control Scheme for Three-Phase Four-Switch Inverter Fed Induction Motor Drives with DC-Link Voltages Offset Suppression by Using Fuzzy Logic Controller", International Journal of Scientific Research in Science and Technology(IJSRST), Print ISSN: 2395-6011, Online ISSN: 2395-602X, Volume 3, Issue 7, pp.979-988, September-October-2017.URL: http://ijsrst.com/IJSRST117373 (UGC Approved)
- S.Rajesh babu, S.Sridhar (2017). Direct Flux Vector Control Of Induction Motor Drives With Maximum Efficiency Per Torque . International Research Journal of Engineering and Technology (IRJET), Volume 4 Issue 4, April 2017.
- ❖ B.Anjaiah1, **S.Sridhar2** Three Level Modified SVPWM Inverter Fed DTC Induction Motor Drive International Research Journal of Engineering and Technology (IRJET) Volume: 04 Issue: 06|july-2017
- \* K. Farzand Ali1, **S.Sridhar2** (2017). Speed Sensor less DTC of VSI fed Induction Motor with Simple Flux Regulation for Improving State Estimation at Low Speed .International Research Journal of Engineering and Technology (IRJET), Volume 4 Issue 3, April 2017.
- ❖ K. Rushi Kumar 1, S. Sridhar 2" A Genetic Algorithm Based Neuro Fuzzy Controller for the Speed Control of Induction Motor" International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE) Vol. 4, Issue 9, July 2015
- ❖ G.Goutham Kumar Reddy1, **S.Sridhar2** "Three Level Modified SVPWM Inverter Fed DTC Induction Motor Drive" International Research Journal of Engineering and Technology (IRJET) Volume: 02 Issue: 06|Sept-2015
- ❖ D.Jyothsna1, S.Sridhar2 '' A Comparative study of MPPT Techniques in Modelling of Solar Photo-Voltaic and PMSG based Wind Hybrid System'' International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE) Vol. 4, Issue 7, July 2015
- ❖ T.Sravani1, **S.Sridhar2** "sym-dtc of an induction motor based on voltage and stator flux angle using fuzzy logic controller" International Research Journal of Engineering and Technology (IRJET) Volume: 02 Issue: 04|July-2015

- ❖ D. Pavankumar1, S. Sridhar2 "A Robust Control Algorithm for Speed Sensorless Induction Motor Drive with SVPWM and Estimation" International Journal of Advanced Research in Electrical, Electronics and Instrumentation Engineering (IJAREEIE) Vol. 4, Issue 7, July 2015
- Anil kumar, **S.Sridhar** (2015)A Fuzzy Adaptive Pi Controller Based DTC Induction Motor Drive" International Journal of Advanced Research in Electrical, (IJAREEIE) Vol. 4, Issue 9, September 2015

#### **Conference:**

- ❖ T. Vemagiri and S. Savarapu, "Fuzzy Logic Based Sensorless Control of Five Phase IPMSM Drives Through HF-SVI Into Third Harmonic Space," 2021 IEEE 2nd International Conference on Applied Electromagnetics, Signal Processing, & Communication (AESPC), Bhubaneswar, India, 2021, pp. 1-6, doi: 10.1109/AESPC52704.2021.9708512.
- ❖ L. Surapureddygari and S. Savarapu, "Performance Analysis of Regenerative Braking in Electrical Vehicles With IPMSM Drive System by Using ANN Controller," 2021 IEEE 2nd International Conference on Applied Electromagnetics, Signal Processing, & Communication (AESPC), Bhubaneswar, India, 2021, pp. 1-7, doi: 10.1109/AESPC52704.2021.9708500.
- ❖ S. Savarapu, M. Qutubuddin and N. Yadaiah, "Performance analysis of Brain Emotional Controller for Induction Motor Drive," 2021 International Conference on Intelligent Technologies (CONIT), Hubli, India, 2021, pp. 1-8, doi: 10.1109/CONIT51480.2021.9498403.
- ❖ Punnepalli.Harikrishna, S. Sridhar, K.Jithendra Gowd(2021) Nonlinear Control of IPMSM Drive using Multilevel Inverter and Third Harmonic Injection International Conference on Science, Technology, Engineering and Management(ICSTEM), Goa, India
- ❖ S. Sridhar 1, Yadaiah Narri 2 (2020). Real-Time Implementation of Brain Emotional Controller for Sensorless Induction Motor Drive with Adaptive System. Proceedings of International Conference on cybernetics, cognition and machine learning applications(ICCCMLA),Goa, Springer publication.
- ❖ S. Sridhar 1, Yadaiah Narri 2, Md. Junaid 3 (2020) Design and tuning of improved current predictive control based on hybrid controller for PMSM. Proceedings of International Conference on cybernetics, cognition and machine learning applications(ICCCMLA),Goa, Springer publication.
- ❖ S.Sridhar, N.Yadaiah '' A Fuzzy adaptive based hysteresis controller based DTC scheme for torque ripple reduction of an IMD'' 2nd International conference on advanced electrical systems & applications (AESA-2015) ISBN: 2393-9923
- ❖ S.Sridhar, N.Yadaiah, K.Ramanjaneyulu '' A comparitive study of a total harmonic distortion in different level cascaded H-bridge inverters'' 38th national systems conferences ELSEVIER Publication, ISBN No: 9789351072973.

#### **Other Activities:**

- ❖ Acted as Core Team Member, APEAPCET-2023, State Level Entrance Test for Engineering, Pharmacy and Agricultural Streams
- ❖ Acted as Core Team Member, APEAPCET-2022, State Level Entrance Test for Engineering, Pharmacy and Agricultural Streams
- \* Acted as Member in constitution of UG & PG Board of Studies in Electrical and Electronics Engineering, JNTUA College of Engineering Ananthapuramu
- ❖ Acted as Fact Finding Committee member for granting University affiliation to various self-financing institutions.
- ❖ Acted as Judge at National level Student Technical Symposiums organized by various institutions.
- \* Acted as Judge for NSS University level Youth Festival 2016.
- ❖ Delivered guest lectures at various University and Affiliated Engineering Colleges

Sridhar Savarapu

Gsloll