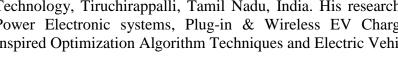## Curriculum Vitae

Brief Profile: **P. Srinivasa Rao Nayak received** B.Tech. degree in Electrical and Electronics Engineering from Nagarjuna University-Guntur AP, M. Tech. degree in Energy Systems from JNTUCE-JNTU Hyderabad, and the Ph.D. degree from the Department of Electrical Engineering, National Institute of Technology, Tiruchirappalli. Currently, he is an Associate Professor with the Department of Electrical and Electronics Engineering, National Institute of Technology, Tiruchirappalli, Tamil Nadu, India. His research interests include Power Electronic systems, Plug-in & Wireless EV Charging, Biologically Inspired Optimization Algorithm Techniques and Electric Vehicle Dynamics.

1. Name: Dr. P. Srinivasa Rao Nayak

2. Designation: Associate Professor

3. Office Address: EEE dept. NIT Trichy-15

4. Telephone (Direct) (Optional): 0431-2503269

   Telephone :   Extn (Optional):

   Mobile (Optional): 7708243070

5. Email (Primary): psnayak@nitt.edu   Email (Secondary) :

6. Field(s) of Specialization: Power Electronics Systems

7. Employment Profile

Job Title	Employer	From	To
Assistant Professor	JBREC, Hyderabad	1/09/2005	18/07/2008
Assistant Professor	NIT, Trichy	28/07/2008	12/03/2018
Assistant Professor (Grade-I)	NIT, Trichy	13/03/2018	20/09/2022
Associate Professor	NIT, Trichy	21/09/2022	Till date

8. Academic Qualifications (From Highest Degree to High School):

Examination	Board / University	Year	Division/ Grade	Subjects
PhD	NITT	2014	-	Power Electronic Systems
M. Tech	JNTU Hyderabad	2006	1_{st}	Energy Systems
B. Tech	Nagarjuna University	2001	2_{nd}	Electrical and Electronics Engineering

Intermediate	Intermediate board of education	1997	3rd	Maths, Physics & Chemistry
SSC	Secondary board of Education	1995	1st	----

9. Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	To
Ph.D and M.Tech Admission Co-ordinator	EEE Department	2008	2009
NBA Co-ordinator	EEE Department	2010	2011
budget Co-ordinator	EEE Department	2010	2011
Staff Advisor for EEE Association	EEE Department	2010	2011
PAC Chairman for VIII Semester B.Tech EEE	EEE Department	2011	2012
Budget Co-Ordinator	EEE Department	2011	2012
Staff Advisor for EEE Association	EEE Department	2012	2013
NBA Co-Ordinator	EEE Department	2013	2014
Staff Advisor for EEE Association	EEE Department	2013	2014
Time table Co-Ordinator	EEE Department	2014	2015
BoS Co-Ordinator	EEE Department	2014	2015
Time table Co-Ordinator	EEE Department	2015	2016
Staff Advisor for EEE Association	EEE Department	2015	2016
Temporary faculty recruitment committee	EEE Department	2017	2018
Admission Coordinator (PhD & MS)	EEE Department	2017	2020
Warden, NITT Hostels	EEE Department	2018	2020
Associate Dean	Administrative Office	2020	Till date

10. Academic/Administrative Responsibilities outside the University

Position	Institution	From	To

11. Awards, Associateships etc.

Year of Award	Name of the Award	Awarding Organization
2022	Best Faculty Performer Award (Assistant Professor Grade-I) category	NIT Trichy

12. Fellowships

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)

13. Details of Academic Work

   (i) Curriculum Development:

S.No	Institute	Duration	Title
1	NITT	2008-09	1. Prepared the Lab Manual for **"Electrical DC Machines Lab".** 2. Prepared the transparencies for teaching **"Non-Conventional Energy Sources"** and distributed the copies of the same to students.
2	NITT	2009-10	1. Preparation of Lab Manual for **"Power Electronics Lab"**. 2. Prepared the transparencies for teaching **"Electrical and Electronics Measurements"** course for B.Tech students and distributed the copies of the same to students.
3	NITT	2010-11	1. Preparation of Lab manual for **"Applied Electrical Engineering Lab"**. 2. Preparation Power point presentation for **"Air pollution, water pollution and global warming"** for teaching the subject **"Energy and Environmental Engineering"**.
4	NITT	2011-12	1. Preparation of Lab Manual for **"Power Electronics Lab"**. 2. Preparation of Lab manual for **"Applied Electrical Engineering Lab"**.

5	NITT	2012-13	1. Preparation of Lab Manual for **"Power Electronics Lab"**.
6	NITT	2013-14	1. Preparation of Lab Manual for **"Power Electronics Lab"**. 2. Preparation Power point presentation for teaching the subject **"Industrial Electronics"** and **"Utilization of the Electrical Energy"**.

(ii) Courses taught at Postgraduate and Undergraduate levels:

S.No	Institute	Duration	Title
1.	NITT	2008-09	**Theory:** 1. Non-Conventional Energy Sources **(M.Tech II Semester -EEE)** 2. Electrical and Electronics Measurements **(B.Tech IV Semester –EEE)** **Laboratory:** 1. Power Electronics Lab **(B.Tech VI Semester – EEE)** 2. Electrical DC Machines Lab **(B.Tech IV Semester – EEE)** 3. Electronics Devices lab **(B.Tech IV semester –EEE)**
2.	NITT	2009-10	**Theory:** 1. Energy and Environmental Engineering **(I year B.Tech)** 2. Electrical and Electronics Measurements **(IV Semester – EEE)** **Laboratory:** 1. Power Converters Lab **(M.Tech I Semester – EEE)**
3.	NITT	2010-11	**Theory:** 1. Utilization of Electrical Energy **(VIII Semester – EEE)** 2. Electrical Electronics Measurements **(IV Semester – EEE)** **Laboratory:** 1. Power Electronics Lab (VI Semester – EEE)
4.	NITT	2011-12	**Theory:** 1. Energy and Environmental Engineering **(I year B.Tech-ECE)** 2. Applied Electrical Engineering **(IV Semester – Mechanical)** 3. HVDC Transmission **(M.Tech – II Semester-EEE) Laboratory:** 1. Power Electronics Lab (VI Semester – EEE) 2. Electrical Machines Lab (B.Tech IV Semester– Mechanical)

5.	NITT	2012-13	**Theory:** 1. Industrial Electronics (**III year B.Tech-EEE-VI-Semester**) 2. Applied Electrical Engineering (**II Semester – Mechanical**) 3. Power electronic Drives (**M.Tech-II Semester-EEE**) **Laboratory:** 1. Power Electronics Lab (VI Semester – EEE)
6.	NITT	2013-14	**Theory:** 1. Industrial Electronics (**III year B.Tech-EEE-VI-Semester**) 2. Applied Electrical Engineering (**II Semester – Mechanical**) 3. Utilization of Electrical Energy (**VIII Semester – EEE**) **Laboratory:** 1. Power Electronics Lab (**VI Semester – EEE**)
7.	NITT	2014-15	**Theory:** 1. Design with PIC microcontroller (**IV year B.Tech-EEE-VII-Semester**) 2. Applied Electrical Engineering (**II Semester – Mechanical**) 4. Utilization of Electrical Energy (**VIII Semester – EEE**) **Laboratory:** 1. Power Electronics Lab (VI Semester – EEE)
8.	NITT	2015-16	**Theory:** 1. Design with PIC microcontroller (**IV year B.Tech-EEE-VII-Semester**) 2. Applied Electrical Engineering (**II Semester – Mechanical**) 3. Power electronic Drives (**M.Tech-II Semester-EEE**) **Laboratory:** 1. Power Electronics Lab (VI Semester – EEE)
9.	NITT	2016-17	**Theory:** 1. Basic Electrical and Electronics Engineering (**I Semester (A sec.) – Production dept.**) 2. Renewable Power Generation Technologies (M.Tech (PE) -I Semester-EEE) **Laboratory:** 1. Power Converters Laboratory (M.Tech (PE) -I Semester-EEE)
10.	NITT	2017-18	**Theory:** 1. Power system Economics and Control systems (**EE401**) –VII Semester EEE 2. Smart Grid Technologies(**EE682**)- PG Semster-I 3. Minor (For other Department students)- IV Semester 4. Fuzzy systems and Genetic Algorithms (EE042)- VIII

S. No.	Institute	Year	Theory / Laboratory
			Semester B. Tech EEE
11.	NITT	2018-19	**Theory:** 1. Renewable Power Generation Technologies **(EE673)-** PG Sem-I 2. Electric & Hybrid Vehicle**(EE687)-** PG Sem-II 3. Vehicular Electrical Power systems**(EEPE34 & EEH016)-**Minor VIII Sem UG **Laboratory:** 1.Power Electronics Lab(EELR15)- PG Sem-II.
12.	NITT	2019-20	**Theory:** 1. Circuit Theory (**III Semester (A sec.) – EEE dept.**) 2. Electric Vehicle Technology & Mobility (EVTM) (PG-Semester-II) 3. Electrical Machines (minor course) **Laboratory:** 1.EEIR16-Internship coordinator.
13.	NITT	2020-21	**Theory:** 1. Control Systems (**VII Semester) – EEE dept.**) 2. Basic Electrical & Electronics Engineering (III-Semester)-Production Engineering. 3. Electric Vehicle Technology & Mobility (EVTM) (PG-Semester-II) 4. Power Electronics Drives (PG)
14.	NITT	2021-22	**Theory:** 1. Renewable power Generation Technologies(RPGT)- PG-Semester-I 2. Basic Electrical & Electronics Engineering (III-Semester)-Mechanical Engineering. 3. Electric Vehicle Technology & Mobility (EVTM) (PG-Semester-II) **Laboratory:** 1.Power Electronics Lab- PG-Semester-I

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(iii)Projects guided at Postgraduate level

S. N o.	Institute	Year	Name of the Student	Title of the Project
1.		2009-10	L. Lileendra Kumar	1. Transient Analysis of Grid Connected PV Generation System
2.			Krishna Murthy CH	2. Modeling and Simulation of Load connected PV Inverter
				3. Design and Implementation of HAWT With Battery Charge Controller Circuit

3.	**NITT**		M.Venkatesh naik	4. Variable Speed Drive Modeling and Control of Wind Turbine
				5. Design and Implementation of Cuk Buck-Boost Converter
4.			M.Sreekanth	6. A New Solar Energy Conversion Scheme Implemented Using Grid –Tied Single Phase
				7. MATLAB Simulation of MPPT Control For Panels Connected To DC-Dc Converter
5.		2010-11	Paparao .K	8. Modeling And Simulation of a PV Charge Control System Using SEPIC Converter
				9. Design And Implementation of A PV Charge Control System Using SEPIC Converter
6.			K. Subrahmanyam	10. Three Phase Bidirectional AC-DC Converter With Constant Power Factor
				11. One Cycle Controlled Bidirectional DC-AC Converter With Constant Power
7.		2011-12	Ashish ranjan rout	12. Design And Implementation of an Analog PID Controller Using Conventional Methods for Output Voltage Regulation In Boost Type DC-DC Converter
				13. Design And Implementation of an Analog PID Controller Using Conventional Methods for Output Voltage Regulation In Buck Type DC-DC Converter
8.			Avinash Atla	14. Study of Variable Speed Domestic Fan Behavior with A Faulty Speed Regulator
				15. A New Scheme for Dynamic Braking of Capacitor – Run Induction Motors
9.		2012-13	N. Ravi	16. Studies on Control Aspects of Washing Machine Motors
				17. Power Transfer and Stability Enhancement by Simultaneous AC/DC PowerFlow in EHV Transmission Line

			G.Venkatesh	18. Application of Conventional Controller Design Methods of Feedback Controller for Buck –Boost type DC-DC Converter
				19. Maximum Power Point Tracking of Solar PV Systems Under Partial Shading Condition Using Optimization Techniques
10.	**NITT**	2013-14	Srinivasa Reddy G	20. Design and Implementation of Dual Input converter inverter fed single phase capacitor run induction motor drive
				21. Design and Implementation of Dual Input converter inverter fed motor drive system incorporating solar charge controller
			Bondu Vijaya Kumar	22. Application of firefly and particle swarm optimization algorithms for solar cell parameter identification
				23. Design and development of reversible speed scheme for PV powered PMDC motor
			Duggineni Giribabu	24. Output power regulation of LED lighting scheme using Particle Swarm Optimization
				25. Design and development of Dual Input LED lighting system
11.		2014-15	Arif Shaik	26. Optimal power management scheme for PMSG based wind generation system
				27. Design of feedback controller for PV fed induction motor
			Ayoob.V.P	28. Application of Firefly algorithm for illumination control of LED lighting system
				29. Application of harmony search algorithm for illumination control of LED lighting system

12.		2015-16	Katta Venkateswarlu	30. Electric vehicle route optimization under different electricity price profiles using particle SWARM optimization
				31. Electric vehicle route optimization under different electricity price profiles using ANT colony optimization
			Bukke Vishnu Bharath	32. Power quality analysis of inverter based power source for ARC welding process
13.		2016-17	Utkarsha Barate	33. Design and Analysis of EV Battery Charge Control for Dual Side LCC Compensated IPT System.
				34. Design and Analysis of Series-Series and Dual Side LCC Compensation Inductive Power System.
14.		2017-18	Radhakrushna Dey	35. Performance analysis of different coupled coil structures with misalignments for wireless EV battery charging
15.	**NITT**	2018-19	Akash Kumar	36. performance of mutual inductance Between multi-transmitter and receiver coil using FEM.
				37. Implementation and investigation of between circular shape multi and single coil pad.
			Damalla Ekalavya	38. Implementation and Analysis of PV and grid power based H-bridge inverter for high frequency load applications.
				39. Modeling and analysis of mutual inductance between rectangular structured coupled coils with different misalignments for the WPT system.
16.		2019-2020	N Laxman	40. Design and Simulation of Dual input Buck- Boost type DC-DC Converter for battery charging application in EV'S.
			Ch .Aravind Goud	41.Design to improve the energy efficiency in wastewater treatment plants using energy efficient motors

				and VFD.
17.		2020-2021	Navodit Mehata	42. Dual Input WPT+PV array buck boost converter for an EV battery charging using ANN.
18.		2021-2022	Jithender singh	43. Controller design for Buck- Boost type dual input DC-DC Converter for battery charging of Electric Vehicle.
		2021-22	Shubham Kapoor	44. Modeling and analysis of hybrid charging stations for Electric vehicles using Bi-directional DC-DC converter.
19.		2022-23	Saurav Kumar	45. Simulation based real time performance analysis of EV drive-train system
		2022-23	Rahul Kumar	46. Grey-Wolf Algorithm based feedback controller design for Multi-Input EV Charger.
		2022-23	Mayuri Dongre	47. Development, Analysis of Hybrid and Bi-directional EV charger.

(iv) Other contribution(s):

Patents Filed:

Sl.No.	Description	Filing details	status
1	*Name of applicant:* BHEL, Trichy *Title:* A Battery less Solar Photovoltaic Power Generation System to Supply Electrical Power during all Seasons to the Utilities Throughout the Day. *Inventors:* Kevin Ark Kumar, Sishaj P. Simon, K. Sundareswaran, **Srinivasa Rao Nayak**, TT Anilkumar, C.H. Ramjeth Malani & Ratchanniya Samuel	Date of Filing: 25/11/2014 Application No: 1231/KOL/2014	Filed
2	Name of applicant: BHEL, Trichy *Title:* A system to determine a day-ahead loading pattern of heavy machineries in industries and proactive control of peak load overshoot.	Date of Filing: 19-03-2016	

	Description	Filing details	Status
	Inventors: Muhammad Ehsan Rajith, Sishaj P Simon, K. Sundareswaran, **P. Srinivasa Rao Nayak**, Rohit Rajan Eapen, M. Senthil kumar, Kevin Ark Kumar	File No.: 201631009629	Filed
3	*Name of applicant:* NIT, Tiruchirappalli *Title:* A System for Efficient Energy Extraction From an Existing Solar Photovoltaic System *Inventors:* Sishaj P Simon, K. Sundareswaran, **P. Srinivasa Rao Nayak**	Date of Filing: 02/11/2017 File.No: 201741039045	Filed
4	*Name of applicant:* NIT, Tiruchirappalli *Title:* SINGLE AXIS SOLAR TRACKING SYSTEM and METHOD THEREOF *Inventors:* Sishaj P Simon, K. Sundareswaran, **P. Srinivasa Rao Nayak**	Date of Filing: 17/09/2020 File.No: 202041040239	Filed

Patents Granted:

Sl. No.	Description	Filing details	status
1	*Name of applicant:* NIT, Tiruchirappalli *Title:* A System with Multiple transmission Loss Co-efficient for Dynamic Economic Generator Dispatch. *Inventors:* Sishaj P Simon, K Sundareswaran, **Srinivasarao Nayak**, C H Ram Jethmalani	Date of Filing: 10/07/2014 Application No:3413/CHE/2014	Granted on 23/11/2021 Patent No: 382380
2	*Name of applicant:* NIT, Tiruchirappalli *Title:* A method of differential relay for power transformer protection using DSP processor *Inventors:* N. P. Padhy, Sishaj P Simon, M. Senthil kumar, K. Sundareswaran, **P. Srinivasa Rao Nayak**	Date of Filing: 05/04/2016 File No: 201641012033	Granted on 28/10/2021 Patent No: 380676

14. Details of Major R&D Projects:

| Title of Project | Funding Agency | Duration | | Cost in Lakhs | Status |
		From	To		Ongoing/ Completed
Design and Optimization of Feedback Controller for Boost type dc-dc Converters Using Artificial Immune System	Central Power Research Institute (CPRI)	2014	2017	8.34	Completed
Design, Development and Analysis of bio-inspired control strategies for Stand-alone solar powered LED lighting systems	MHRD Communication-NITT/SCSP-TSP	2014	2017	44.74	Completed
Smart Maximum Demand Control Through Modern Algorithms	Central Workshop Southern Railways (Golden Rock Workshop) Trichy	2013	2014	1	Completed
The Design and Development of Multi Input 10 KVA Online UPS	BHEL, Trichy	2014	2015	15	Completed
Implementation and Analysis of coupled coils at different structures with misalignments for WPT EV Battery charging	DST- SERB	2019	2021	28.46	Completed
Design, Implementation and Analysis of Wireless power transfer system and PV System for battery charging of passenger e-Bus	CPRI Bangalore	2019	2021	32.40	Completed

A 10Kw Pilot PV Plant Based on Single Axis Solar Tracking System Using Second Lever Principle	DST- SERB	2021	2023	42.3	On going

15. Number of PhDs guided

Name of the PhD Scholar	Title of PhD Thesis	Role(Supervisor/ Co-Supervisor)	Year of Award
Dharavath Kishan	Design Implementation and Analysis of Resonant Inductive power transfer system for Electric Vehicle battery charging Application	Supervisor	2018
Gundugulla Peddanna	--	Supervisor	Thesis yet to submit
Kamalapathi K	Design, realization and performance evaluation of wireless power transfer system integrated with solar power for Electric vehicle charging	Supervisor	2022
T Manikandan	Design, development and Investigations on Simultaneous transmission of power and Full-duplex data communsication on IPT system for Low and medium type power applications	Co-Supervisor	Thesis Submitted
Anna Selvaraj B	--	Supervisor	Ongoing
Kannan M	--	Co-Supervisor	Ongoing
Ganesh babu Mattaparthi	--	Supervisor	Ongoing
Ayush Kumar Laad	--	Supervisor	Ongoing
Annamalai		Co-Supervisor	

16. Participation in Workshops/ Symposia/ Conferences/ Colloquia /Seminars/ Schools etc. (mentioning the role)

Date(s)	Title of Activity	Level of Event (International/ National/ Local)	Role (Participant/ Speaker/ Chairperson, Paper presenter, Any other)	Event Organized by	Venue
8th – 9th August	Right to Information Act, 2005 and Role of Information Officer	National	Participant	NIT-Trichy	NIT-Trichy
12th – 14th November 2008	National Workshop on Power Electronics	National	Participant	NIT-Trichy	NIT-Trichy
20 Nov 2008	Awareness programme On Intellectual property Rights	National	Participant	NIT-Trichy	NIT-Trichy
21st – 27th August 2008	Instructional Design and Delivery system	National	Participant	NIT-Trichy	NIT-Trichy
15th – 27th June 2009	Engineering practices On Fuzzy Logic, Neural Networks and Hybrid Intelligent Systems	National	Participant	NIT-Trichy	NIT-Trichy
29 Apr 2009	Patent Information	National	Participant	Bharathidasan University	Bharathidasan University
04 May 2009	Power Electronic Simulation – SEQUEL	National	Participant	NIT-Trichy	NIT-Trichy
12-22 Dec 2011	Solar Photovoltaic's: Fundamentals, technologies and Application	National	Participant	NIT-Trichy	NIT-Trichy

3-4 Feb 2012	Supercritical Technology for power sector	National	Participant	ESCI Hyderabad	ESCI Hyderabad
22-23 June 2012	PIC Micro controller applications in Power electronics circuits	National	Participant	NIT-Trichy	NIT-Trichy
05 Jan 2013	MSP 430 Microcontroller Based System Design"	National	Participant	NIT-Trichy	NIT-Trichy
16 Dec 2012	Resonant and soft switching power conversion and three more topics	National	Participant	PEDES-2012 Bangalore	PEDES Bangalore
28-29 April 2015	Conclave on academic reforms(CAR-2015)	National	Participant	NIT-Trichy	NIT-Trichy
17 Sep 2019	Supporting Student learning and wellbeing crafting the new millennial	National	Participant	Ideal river view resort	Tanjore
23-25 Feb 2019	Faculty development Programmed (FDP)	National	Participant	NIT-Trichy	NIT-Trichy

17. Workshops/ Symposia/ Conferences/ Colloquia/Seminars Organized (as Chairman/ Organizing Secretary/ Convener / Co-Convener)

Title of Activity	Level of Event (International/ National/ Local)	Date (s)	Role	Venue
One day workshop on "Application of Biologically Inspired Algorithms for Power System and Power Electronics Engineering" Under the Self- Financed Category	National	28th July 2012	Coordinator	NIT Trichy
One Day Workshop on Fuzzy Systems and Applications Under the Self-Financed Category	National	13th July 2013	Coordinator	NIT Trichy
Three Day Conclave on Academic Enhancements in Electrical Engineering (Power System and Power Electronic Streams) Under TEQIP-II	National	8th -10th November 2013	Coordinator	NIT Trichy
One Day Workshop on Particle Swarm Optimization, Applications and Implementation on a Microcontroller Under self-finance category	National	8th March 2014	Coordinator	NIT Trichy
Two Day Workshop on Implementation of Firefly Algorithm in SCILAB and μ-controller Under self-finance category	National	10-11th October 2014	Coordinator	NIT Trichy
One-week Workshop on Recent Developments in Electrical Power Engineering Under	National	29th Aug – 3rd Sept 2016	Coordinator	NIT Trichy

TEQIP II				
"RECENT ADVANCES IN E-MOBILITY AND CHARGING"	National	19th July–23rd July 2021	Coordinator	NIT Trichy

18. Invited Talks delivered:

Topic	Date	Inviting Organization
Faculty Development Programme on Electric Vehicles	2021	Dept. of EEE, NIT Trichy
One Week AICTE Sponsored Online STTP	2020	Dept. of EEE,, Anurag University, Hyderabad
AICTE Sponsored Six Days Online Short-Term Training Programme (STTP	2020	QIS College of Engineering and Technology, Ongole
Faculty Development Program	2019	VIT Vellore
CE & QIP	2019	IIT Bombay
Workshop	2019	Ideal River View Resort, Tanjore

19. Membership of Learned Societies

Type of Membership (Ordinary Member/ Honorary Member / Life Member)	Organization	Membership No. with date
Life Member	Indian Society for Technical Education (ISTE)	LM80445/2011
Life Member	Solar Energy Society of India (SESI)	LM/1435/2010
Life Member	System Society of India (SSI)	LM31941/2011

20. Academic Foreign Visits

Country	Duration of Visit	Programme
Singapore	2017	International conference on electrical and Electronic Engineering (ICEEE)
Portugal	2018	Proceedings of 4th International Conference on Vehicle Technology and Intelligent Transport Systems (VEHITS)
Kaula lumpur, Malasiya	2019	ICECIE (IEEE)

21. Publications:

(A) Referred Research Journals:

S. No	Author(s)	Title of Paper	Journal	Volume (No.)	Page. no	Year	Quality of the Journal
1	K.Sundareswaran, **P.S.Nayak**	Ant colony based feedback controller design for soft- starter fed induction motor drive	*Applied Soft Computing, Elsevier.* https://dl.acm.org/doi/10.1016/j.asoc.2011.12.012	Vol.12, No. 5	1566-1573	May 2012	Q1
2	Kinattingal Sundareswaran, Vadakke Devi, SelvakumarSankar, **PanugothuSrinini vasa Rao Nayak,** Sankar Peddapati	Feedback controller Design for a Boost Converter Through Evolutionary Algorithms	*IET Power Electronics.* https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6783543	Vol. 7, No. 1	1-11	Oct 2013	Q1
3	K.Sundareswaran, Devi V, S. Sankar, **PSR Nayak**, A. Chandrasekar	Feedback controller Design for a Buck Converter Through Evolutionary Algorithms	*Australian Journal of Electrical & Electronics Engineering.*https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=6783543	Vol.10, No.4	459 - 466	2014	Q3
4	K.Sundareswaran, **P.S.R Nayak**	Particle Swarm Optimization Based Feedback Controller Design for Induction Motor Soft- Starting	*Australian Journal of Electrical & Electronics Engineering.* http://www.ijareeie.com/upload/2016/rapideet/28_pso%20based%20soft%20starting%20of%20inductio	Vol 11, No.1	55-63	March 2014	Q3

			n%20motor.pdf				
5	Sundareswaran, K. and **Nayak, P.S.R.**	Design of Feed Back Controller for Soft-starting Induction Motor Drive System Using Genetic Algorithm	*Int. J. Industrial Electronics and Drives , Inder Science Publisher.* https://www.inderscience.com/info/inarticle.php?artid=59229	Vol. 1, No. 2,	111–120	March 2014	Q3
6	K.Sundareswaran, **P.S.R.Nayak** andA.ChandraSekh ar,	Development of an Improved Particle Swarm Optimization(PSO) and its Application to Induction Motor Soft-Starting	*International Review of Automatic Control, Praise worthy prize.* https://www.praiseworthyprize.org/jsm/index.php?journal=ireaco&page=article&op=view&path%5B%5D=14117	Vol. 7, No. 2	156-165	March 2014	Q2
7	K.Sundareswaran, **P.S.R. Nayak**, P. Sankar and V.Vigneshkumar	Inverter Harmonic Elimination Through Flower Pollination Enhanced Genetic Algorithm	*International Journal of Advanced Trends in Computer Science and Engineering.* http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.644.7176&rep=rep1&type=pdf	Vol. 3 , No.1	342 - 348	February 2014	Q4
8	K.Sundareswaran, P. Sankar, **P.S.R. Nayak**, S.P. Simon and S. Palani,	Enhanced Energy Output From a PV system under partial shaded conditions through artificial Bee Colony	*IEEE Transactions on Sustainable Energy*	Vol. 6, No. 1	198-209	January 2015	Q1
9	K.Sundareswaran, V. Vigneshkumar, P. Sankar, S.P. Simon, **P.S.R. Nayak**, and S. Palani	Development of an improved P&O Algorithm Assisted Through a Colony of Foraging Ants for MPPT in PV System	*IEEE Transactions on Industrial Informatics* .https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=7332 776	Vol. 12, No.1	187-200	February 2016	Q1

10	Kinattingal Sundareswaran and Panugothu **Srinivasa Rao Nayak**,	Optimization of Induction Motor Soft-Starting through Artificial Immune System	*Electrical Power Components and Systems, Taylor & Francis.*	Vol.7, No.2		2016	Q1
11	Ram JC Hemparuva, S.P.Simon, S.Kinattingal, **SRN Panugothu**	Gravitational Search Algorithm-Based Dynamic Economic Dispatch by estimating Transmission System Losses using A-Loss Cofficients	*Turkish Journal of Electrical Engineering And Computer Science*, 2016. https://dergipark.org.tr/en/download/article-file/431233	Vol 24, No. 5	3769-3781	2016	Q3
12	S. Kumar Murugan, S.Simon, **P. Nayak**, K.Sundareswaran, N.P. Padhy	Power Transformer Protection using Chirplet Transform	*IET Generation, Transmission and Distribution*, https://digital-library.theiet.org/content/journals/10.1049/iet-td.2015.1486	Vol.10, No:10	2520-2530	2016	Q1
13	Ram JC Hemparuva, S.P.Simon, K.Sundareswaran, **P.S.R. Nayak**	Auxilliary Hybrid PSO BPNN based transmission losses estimation in Generation Scheduling	*IEEE Industrial Informatics*, 2016 https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=75795 60	Vol.13, No. 4	1692-1703.	2016	Q1
14	Anilkumar T.T., Sishaj P Simon, **P. Srinivasa Rao Nayak**, K. Sundareswaran and Narayana Prasad Padhy,	Pico - Hydel Hybrid Power Generation System with an Open Well Energy Storage	*IET Gen. Trans. Dist.* https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=78477 49	Vol.11, No.3	740-749	Februsary 2017	Q1

15	M. Senthilkumar, Sishaj P Simon, P. **Srinivasa Rao Nayak**, K. Sundareswaran and Narayana Prasad Padhy	An Empirical Fourier Transform Based Power Transfo rmer Differential Protection	IEEE Transactions on Power delivery. https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=74870 26	Vol. 32, No.1	209-218	February 2017	Q1
16	Panugothu **Srinivasa Rao Nayak**; DharavathKishan	Development and Analysis of S/S Resonant Wireless System for Electric-Two Wheeler Battery Charging	International Journal of Electric and Hybrid Vehicles	Vol. 10, No. 3	253-265	2018	Q4
17	**Panugothu Srinivasa Rao Nayak** ; DharavathKishan; sPabbathi Annaiah	Investigation of MI between circular spiral coils with misalignments for EV battery charging	IET Science, Measuremen t & Technology	Vol.12, Issue 7,	844 – 850	2018	Q2
18	**P. Srinivasa Rao Nayak**&Dharavath Kishan	Performance analysis of series/parallel and dual side LCC compensation topologies of inductive power transfer for EV battery charging system.	Frontiers in Energy. https://link.springer.com/content/pdf/10.1007/s11708-018-0549-z.pdf.	Vol.14, Issue 1,	166-179	2018	Q2

19	D. Kishan, **P. Srinivasa Rao Nayak**, B. Naresh Kumar Reddy	Implementation of Identical Spiral Square Inductive Coils for Wireless EV Battery Charging Application	Iranian Journal of Electrical And Electronic Engineering	Vol.16, Issue 1,	66-73	2019	Q4
20	Mahammed Mansoor O, Sishaj P Simon, kevin Ark Kumar, K Sundareswar an, **P. Srinivasa Rao Nayak**, Narayana prasad padhy.	Imapct and economic assessment on solar PV mirroring system- A feasibility report.	Energy conversion and management (Elsevier)	Vol.203	112-222	2020	Q1
21	Satheesh Krishnan G, K Sundareswar an, Sishaj P Simon, kevin Ark Kumar, **P. Srinivasa Rao Nayak**	MPPT in PV using ant colony optimization with dwinding population	IET Renewable power generation	Vol.14 Iss.7	1105-1112	2020	Q2
22 (Q2)	K.Kamalapat hi, **P.srinivasa Rao Nayak** , Vipul kumar tyagi	Design and implementation of dual source (WPT + PV) charger for EV battery charging	International Transaction on Electrical Energy systems (Wiely Publication)	Vol31,Is sue 11	E1308 4	2021	Q2

23 (Q3)	**P.srinivasa Rao Nayak**, G .peddanna	Investigation of MI and performance analysis of SS resonant IPT system for EV battery charging application	Australian Journal of electrical and electronics engineering	Volume 18, Issue 4		2021	Q3
24 (Q2)	K. Kamalapathi, **P. Srinivasa Rao Nayak** , Vipul kumar tyagi	Development and analysis of three-coil wireless charging system for electric vehicles	International Journal on circuit theory and application (Wiely Publication)	Vol.50, Issue 1	249-271	2022	Q2
25 (Q4)	K.Kamalapathi, **P.srinivasa Rao Nayak** , Vipul kumar tyagi	Analysis of Dual Input Buck-Boost Converter for Solar PV Integration with Wireless Electric Vehicle Charger	Distributed Generation & Alternative Energy Journal (SPECIAL ISSUE: Energy Access & Off-Grid Systems for Residential Microgrids/Nanog)	Vol.31, Issue 1	73-102	2022	Q4
26 (Q2)	T.Manikandan, P. **Srinivasa Rao Nayak**, K. Sundareswaran	A new technique for power transmission and full duplex communication employing SN IPT system	International Journal on circuit theory and application (Wiely Publication)	Vol.50, Issue 2	562-573	2022	Q2
27 (Q3)	**P.srinivasa Rao Nayak**, G .peddanna	Mutual Inductance estimation between rectangular structures magnetic coils with various misalignment for wireless EV charger	International journal of electric and hybrid vehicles	Accepted for publication		2022	Q3

28 (Q1)	K. Kumba, S. P. Simon, K. Sundareswaran, **P. S. R. Nayak**, K. A. Kumar and N. P. Padhy	Performance Evaluation of a Second-Order Lever Single Axis Solar Tracking System	*IEEE Journal of Photovoltaics*	vol. 12, no. 5,	pp. 1219-1229	Sept. 2022	Q1

(B) Conferences/Workshops/Symposia Proceedings

Sl. No.	Author(s)	Title of Abstract/ Paper	Title of the Proceedings	Venue	year	Role
1	K. Sundareswaran, **P. Srinivasarao sNayak**, ChDurgaVenkatesh and Hariharan B	Optimal Placement of FACTS Devices using Probabilistic Particle Swarm Optimization	IEEE PES International Conference on Innovative Smart Grid Technologies (ISGT)	Kollam, Kerala	2011	Co-Author
2	K.Sundareswaran, **P.Srinivasarao Nayak**, Ch DurgaVenkatesh	Induction Motor Starting Dynamic optimization Using Random Search method	Second International Conference on Advances in Control and Optimization of Dynamical Systems (ACODS)	IISC Bangalore	2012	Co-Author
3	K. Sudareswaran, Hariprasad B, P. Sankar, **P.Srinivasa Rao Nayak** and S. Sankar	A Voltage Constrained Time Sharing Switching Scheme for Dual Input Buck Converter	IEEE International conference on Power Electronics, Drives and Energy Systems (PEDES)	CPRI, Bangalore	2012	Co-Author

4	K.Sundareswaran, P.Sankar, and **P.Srinivasa Rao Nayak**	Analysis on the Failure of Dynamic Braking of Capacitor-Run Induction Motor Supplied from Half-Controlled Converter	EEE International conference on Power Electronics, Drives and Energy Systems (PEDES)	CPRI, Bangalore	2012	Co-Author
5	K. Sundareswaran, S.Sankar,**P.Srinivasa Rao Nayak**	Feedback controller Design for a Buck-boost Converter through Evolutionary Algorithms	EEE International conference on Power Electronics, Drives and Energy Systems (PEDES),Dec. 2012.	CPRI, Bangalore	2012	Co-Author
6	K Sundareswaran, Kuruvinashetti Kiran, VarshaPadhee, P Sankar, **P. Srinivasa Rao Nayak,**Abhilash Mahadevan	Buck-Boost Converter Controller Design Using Bacterial Foraging	IEEE Multi-conference on Systems and Control (IEEEMSC), Aug. 2013.	Hyderabad	2013	Co-Author
7	K.Sundareswaran, Kuruvinashetti Kiran, Hariprasad.B, P Sankar, **P.Srinivasa Rao Nayak**	Output Voltage Controller of Dual Input Buck-Boost Converter	IEEE PES International Conference on Innovative Smart Grid Technologies (ISGT)	Bangalore	2013	Co-Author
8	K.Sundareswaran, Kuruvinashettian, P Sankar, V.Vignesh Kumar, **P. Srinivasa Rao Nayak**	Output Voltage Control and Power Management of a Dual Input Buck-Boost Converter Employing P & O-Algorithm	Third International conference on Advances in Controls and Optimization in Dynamical Systems.(IFAC), March 2014.	IIT Kanpur	2014	Co-Author

9	K.Sundareswaran, Kuruvinashetti Kiran, P Sankar, V. Vignesh Kumar, **P. Srinivasa Rao Nayak**	Optimization of Dual Input Buck Converter Control Through Genetic Algorithm	Third International conference on Advances in Controls and Optimization in Dynamical Systems.(IFAC)	IIT Kanpur	2014	Co-Author
10	K.Sundareswaran, Kuruvinashetti Kiran and **P. Srinivasa Rao Nayak**	Application of Particle Swarm Optimization for Output Voltage Regulation of Dual Input Buck-Boost Converter	Second International conference on ICGCCEE-14,	Coimbatore, Tamil Nadu.	2014	Co-Author
11	Dharavath Kishan, **P.S.Nayak**	Wireless Power Transfer Technologies For Electric Vehicle Battery Charging- A State Of The Art	SCOPES- 2016	Centurion University, Odisha.	2016	Co-Author
12.	K.Sundareswaran, V. Vigneshkumar, Sishaj P Simon, **P Srinivasa Rao Nayak**	Gravitational search algorithm combined with P&O method for MPPT in PV systems	Thirteenth IEEE international India Conference (INDICON 2016)	Trivindrum, India	2016	Co-Author
13.	K.Sundareswaran, V.Vigneshkumar, Sish aj P Simon, **P Srinivasa Rao Nayak**	Cascaded Simulated Annealing/Perturb and Observe method for MPPT in PV systems	IEEE international conference on Power Electronics Drives and Energy Systems (PEDES 2016)	Banglore, India	2016	Co-Author

14.	**P SrinivasaRao** Nayak,Rufzal T A	Design of feedback controller Employing cuckoo search algorithm for induction motor soft starting	International conference on electrical and Electronic Engineering(ICEEE)	Singapore	2017	First Author
15.	**P SrinivasaRao** Nayak,Rufzal T A	Fire fly algorithm based soft starting scheme for induction motor drives	ICCPEAT	Pondichery, India	2017	First Author
16	**P. Srinivasa Rao Nayak,** Kishan Dharavath	Design and Analysis of SS Resonant IPT System with Computed Mutual Inductance through FEM Model	Proceedings of IEEE International Conference on Power Instrumentation Control and Computing	Kerala, India	2018	First Author
17	**P. Srinivasa Rao Nayak,** Kishan Dharavath, Radhakrushna Dey, K. Sundareswaran and Sishaj P Simon	Performance Evaluation of Square Coupled Coils at Different Misalignments for Electric Vehicle Battery Charging	Proceedings of 4th International Conference on Vehicle Technology and Intelligent Transport Systems (VEHITS)	Portugal.	2018	First Author
18	**P. Srinivasa Rao Nayak,** and T. A. Rufzal.	Performance analysis of feedback controller design for induction motor soft- starting using bio-inspired algorithms.	International Conference on Power, Instrumentation, Control and Computing (PICC)		2018	First Author

19	Dharavath Kishan, **P. Srinivasa Rao Nayak,** Saraswathi B, D. V. Nair, H. Sudheer	Estimation of Mutual Inductance between Identical Spiral Circular Inductive Coils for Wireless EV Battery Charging	Proceedings of IEEE International Conference on Electrical, Communication, Electronics, Instrumentation and Computing (ICECEIC)	Chennai, India	2019	Co-Author
20	**Srinivasa Rao Nayak Panugothu,** Peddanna Gundugallu, K Kamalapathi, B Krishna Naick	Analysis of mutual inductance between multi-single coupled coils at square structure using fem	ICECIE (IEEE)	Kaula lumpur, Malasiya,	2019	First Author
21	**Srinivasa Rao Nayak** Panugothu, Peddanna Gundugallu, T Manikandan, Damalla Ekalavya and Sishaj P Simon	Analysis of Mutual Inductance Between Rectangular Structured Wireless Coupled Coils with Different Misalignments Using Finite Element Modeling	NPEC	NIT Trichy	2019	First Author
22	Dasarath Sahu, **P.Srinivasa Rao Nayak**	Design and Analysis of solar e-Rickshaw Charging system	Electric drive system	Hyderabad	2021	Co-author
23.	**P. Srinivasa Rao Nayak,** K. Kamalapati; N. Laxman; Vipul Kumar Tyagi	Design and Simulation Of BUCK-BOOST Type Dual Input DC-DC Converter for Battery Charging Application in	2021 International Conference on Sustainable Energy and Future Electric Transportation (SEFET)	Hyderabad	2021	First Author

		Electric Vehicle				
24	Dasarath Sahu, **P. Srinivasa Rao Nayak**	A Substantial Modelling and Analysis of Solar Powered e-Rickshaw Drive system.	2021 International Conference on Sustainable Energy and Future Electric Transportation (SEFET)	Hyderabad	2021	Co-author

(C) Books & Monographs:

Author(s)	Title of Book/Monograph	Name of Publishers	Year of Publication	ISSN/ISBN Number
Dr. P. Srinivasa Rao Nayak, Dr. K. Kamalapthi	**Book Title**: Power Electronics for Electrical Vehicles and Energy storage. **Book Chapter Title**: Performance Analysis of the Integrated dual input converter for EV battery charging application	CRC press Taylor & Francis	Accepted for Publication	----

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