National Institute of Technology, Tiruchirappalli: Performa for CV of Faculty/ Staff Members

Curriculum Vitae

Dr. D V Siva Krishna Rao K, obtained under graduation in Electrical and Electronics Engineering from Kakatiya University, Andhra Pradesh State University. He obtained masters and doctorate from National Institute of Technology, Tiruchirappalli, India.

He served as an Assistant Professor in the Department of Electrical and Electronics Engineering, Birla Institute of Technology (BIT) Mesra. He was worked as an Assistant Professor Senior Grade in the School of Electrical Engineering, Vellore Institute of Technology (VIT), Vellore. Later, he joined as an Assistant Professor in the Department of Electrical Engineering at NIT, Srinagar.

He had worked for the establishment of NABL accredited Calibration laboratory in NIT, Tiruchirappalli. He had an experience in the field of calibration as a Technical Manager.

His research expertise includes Solar Photovoltaic systems (grid connected and stand-alone), forecasting techniques and MPPT techniques. He is currently working in the area of Electric Vehicles and Smart grid technologies. He has performed consultancies for Solar PV plant installations and testing. Energy auditing studies of industries are also included in his consultancy work. He has guided the UG and PG students in the area of distributed energy generation and energy/power management in smart grid.

Designation: ASSISTNAT PROFESSOR

Office Address: Room No: MN002

Department of Energy and Environment

NIT, Trichy-620015

Email (Primary):damodharsiva@nitt.edu

Field(s) of Specialization: Solar Energy Utilization, Solar Photovoltaics

Employment Profile

Job Title	Employer	From	To
Assistant Professor	NIT, Thiruchirappalli	27-09-2022	Till-date
Assistant Professor	NIT, Srinagar	06-04-2021	26-09-2022

Assistant Professor-Senior Grade	VIT, Vellore	03-06-2020	02-04-2021
Assistant Professor (AGP 6000)	BIT, Mesra	01-July-2018	31-05-2020

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

Examination	Board / University	Division/ Grade	Subjects
Ph.D.	NIT, Thiruchirappalli	I/8.76	Solar PV
M.Tech.	NIT, Thiruchirappalli	I/8.34	Energy Engineering
B.Tech.	Kakatiya University, Waranagl, A.P	I/75.12	Electrical & Electronics Engineering
Intermediate	A.P.Residential Jr. College, Venkatagiri, Nellore	I/95.70	Maths, Physics and Chemistry
SSC	A.P.Residential School, West Godavari	I/85.84	Maths and Science

Academic/Administrative Responsibilities within the University

Position	Faculty/Department/Centre/Institution	From	To
IEEE Student Chapter Coordinator	Department of Electrical Engineering, NIT Srinagar	09-06-2021	26-09-2022
EED-Carrier Counselling Coordinator	Department of Electrical Engineering, NIT Srinagar	31-05-2021	26-09-2022
EED-3rd Semester Coordinator	Department of Electrical Engineering, NIT Srinagar	21-10-2021	26-09-2022
SPARK-NITSRINAGAR, student club coordinator	Department of Electrical Engineering, NIT Srinagar	10-09-2021	26-09-2022

Fellowships-

Year of Award	Name of the Fellowship	Awarding Organization	From (Month/Year)	To (Month/Year)
2010	GATE Fellowship	MHRD,	Aug/2010	Jun/2012

		GOI		
2014	MHRD Fellowship	MHRD Fellowship, GOI	Aug/2014	Jan/2018

Details of Academic Work
  (i) Curriculum Development
        -Smart grid Technologies
        -Renewable sources grid integration
        -Renewable energy laboratory
  (ii) Courses taught at Postgraduate and Undergraduate levels

Name of the Course	UG/PG	Institute
EE5203 Electrical Machines-II	UG	NIT Srinagar
EE3202 Basic Electrical Engineering Laboratory	UG	NIT Srinagar
EE5204 Electrical Machines-II Laboratory	UG	NIT Srinagar
EE101 Basic Electrical Engineering	UG	NIT Srinagar
EE 4204 Electrical Machines Laboratory	UG	NIT Srinagar
Power System reliability	UG & PG	NIT, Srinagar
Power System Protection	UG	VIT, Vellore
Basics of Electrical Engineering	UG	VIT, Vellore
EE583 Renewable Sources of Electrical Energy and Grid Integration	PG	BIT, Mesra
EE205 Circuit Theory	UG	BIT, Mesra
EE101 Basic Electrical Engineering	UG	BIT, Mesra
EE5204 Electrical Machines –II Laboratory	UG	BIT, Mesra
Principles of Electrical Engineering	UG	BIT, Mesra

	UG	BIT, Mesra
EE6208 Computer Aided Machine Design Lab	UG	BIT, Mesra
ELE—7/E System Planning & Load Forecasting	UG	BIT, Mesra

Projects guided at Postgraduate level

Sl. No.	Title of Dissertation/Project	Department/		Year
		Institute		
1	Performance Evaluation of CHB Multilevel Inverter Based STATCOM for Reactive Power Compensation In Grid Connected Solar PV System	Electrical Engineering	NIT, Srinagar	2022
2	Extraction and modelling of solar cell parameters using AI	Electrical Engineering	NIT, Srinagar	2022
3	Photovoltaic and solar power Forecasting for smart grid Energy management	Electrical and Electronics Engineering	BIT, Mesra	2020
4	Cascaded Artificial Neural Network based MPPT algorithm for PV application	Electrical and Electronics Engineering	BIT, Mesra	2019
5	Parameter estimation and implementation of maximum power tracking algorithm for solar photovoltaic system	Electrical and Electronics Engineering	BIT, Mesra	2019

(iii)Other contribution(s)
   Projects guided at Undergraduate level

Sl. No.	Title of Dissertation/Project	Department/		Year
		Institute		
1	Energy management strategy in an Electric vehicle with Hybrid Energy storage system	Electrical Engineering	NIT, Srinagar	2022

2	Development of a photovoltaic MPPT controller based on neural network	Electrical Engineering	NIT, Srinagar	2022
3	Performance analysis of single axis tracker	Electrical Engineering	NIT, Srinagar	2022
4	Artificial neural network approach for load Forecasting in demand side management	Electrical and Electronics Engineering	BIT, Mesra	2020
5	Design of maximum power tracker for a PV array operating under partial shading conditions using complete search of duty cycle	Electrical and Electronics Engineering	BIT, Mesra	2019
6	Solar module I-V curve extraction and a study on effects of partial shading on solar array	Electrical and Electronics Engineering	BIT, Mesra	2019

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
2022	Conference	International	Session chair	NIT Srinagar	NIT Srinagar
2022	FDP	National	Speaker	GATES Institute of Technology	GATES Institute of Technology
2022	Conference	International	Participant	International Conference on Intelligent Controller and Computing for Smart Power 2022 (ICICCSP 2022	Hyderabad, India
2021	Conference	International	Participant	IEEE International	VIT, Vellore

				Conference on Innovations in Power and Advanced Computing Technologies", Accepted, i-PACT	
2021	FDP	National	Speaker	Vishnu Institute of Technology, Bheemavaram	Vishnu Institute of Technology, Bheemavaram
2019	Conference	International	Session chair	BIT Mesra	BIT Mesra
2019	TEQIP FDP Workshops	National	Participant	TEQIP-MHRD	IIT Hyderabad
2018	TEQIP FDP Workshop	National	Participant	TEQIP-MHRD	IIT Madras
2017	NABL Workshop NAGMAN	National	Participant	NIT, Tiruchirappalli	NIT, Tiruchirappalli
2016	NABL Workshop-BHEL	National	Participant	NIT, Tiruchirappalli	NIT, Tiruchirappalli
2016	Energia-Energy day	National	Participant	NIT, Tiruchirappalli	NIT, Tiruchirappalli
2015	NABL Workshop	National	Participant	NIT, Tiruchirappalli	NIT, Tiruchirappalli
2015	MATLAB Workshop	National	Participant	NIT, Tiruchirappalli	NIT, Tiruchirappalli
2015	Waste management workshop	National	Participant	NIT, Tiruchirappalli	NIT, Tiruchirappalli
2015	Energia-Energy day	National	Participant	NIT, Tiruchirappalli	NIT, Tiruchirappalli
2012	SOLAR PV workshop	National	Teaching Assistant	IIT, Bombay	NIT, Tiruchirappalli
2012	Conference	International	Participant	International conference on POWER, SIGNALS, CONTROL AND COMPUTATIONS held in Vidya Academy of Science and Technology	
2010	Poster-Tech	National	Participant	Kakatiya	Kakatiya

				University, Kothagudem	University, Kothagudem
2010	Paper presentation-Tech	National	Participant	Kakatiya University, Kothagudem	Kakatiya University, Kothagudem
2008	Paper presentation Sankalp-Techfest	National	Participant	SRKR, Bheemavaram	SRKR, Bheemavaram
2008	Network Design-Techfest	National	Participant	SRKR, Bheemavaram	SRKR, Bheemavaram
2009	Robotics	National	Participant	MJIT, Hyderabad	MJIT, Hyderabad
2009	Robotics	National	Participant	NIT, Warangal	NIT, Warangal

Invited Talks delivered-

Topic	Date	Inviting Organization
Carrer Opportunities for Electrical engineers	26-May-2022	NIT, Srinagar
A road map for IES	04-06-2022	NIT Srinagar
Role of forecasting in renewable energy grid integration	2022	GATES Institute of Technology

Publications

(A) Refereed Research Journals:

Author (s)	Title of the paper	Name of Journal	ISBN/ISSN No.	Year
D V Siva Krishna Rao K , Pradeep Vishnuram, Konduru Sudharshan, C Naveen	Systematic Review on Impact of Different Irradiance Forecasting Techniques for Solar Energy Prediction	Energies, MDPI	**ISSN** 1996-1073	2022

D V Siva Krishna Rao K, Premalatha	Modeling of solar photovoltaic power using a two-stage forecasting system with operation and weather parameters	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects	1556-7230 .	2022
D V Siva Krishna Rao K, Premalatha, C Naveen, Mande Amol Balu M	Modelling of solar still production using operational and environmental parameters with Artificial Neural Network for a Tropical Savanna climate	Applied Solar Energy, Springer	1934-9424	2022
D V Siva Krishna Rao K, V.S.N.Narasimha Raju, M. Premalatha	A Novel Constant Power Management Controller for Hybrid PV-Battery System	Journal of Circuits, Systems, and Computers, World Scientific Publishing Company	1793-6454	2020
D V Siva Krishna Rao K , V.S.N.Narasimha Raju, M. Premalatha	A novel approach for reactive power compensation in hybrid wind-battery system using distribution static compensator.	Journal of Hydrogen Energy, Elsevier	ISSN: 0360-3199	2019
D V Siva Krishna Rao K, Mande Amol Balu M , Premalatha, C Naveen,	Effect of orientation on the yield of low cost solar stills with coco peat and charcoal as an absorber material	Desalination and Water Treatment	1944-3994	2019
D V Siva Krishna Rao K, Mande Amol Balu M, Premalatha	Performance analysis of biomass-based absorber solar still through ANN and MLR approach	Desalination and Water Treatment	ISSN Print 1944-3994	2019
D V Siva Krishna Rao K, M Premalatha, C Naveen	Method and strategy for predicting daily global solar radiation using one and two input variables for Indian stations	Journal of Renewable and Sustainable Energy, AIP	1941-7012	2018

D V Siva Krishna Rao K, M Premalatha, C Naveen	Analysis of different combination of meteorological parameters in predicting the horizontal global solar radiation with ANN approach: A case study	Renewable & Sustainable Energy Reviews, Elsevier	1364-0321	2018
D V Siva Krishna Rao K, M Premalatha, C Naveen	Models for estimating monthly mean daily global solar radiation from in-situ measurements: Application in Tropical Climate, India	Urban Climate, Elsevier	2212-0955 -	2017
D V Siva Krishna Rao K, Premalatha, C Naveen, Mande Amol Balu M	Modelling of solar still production using operational and environmental parameters with Artificial Neural Network for a Tropical Savanna climate	Applied Solar Energy, Springer	1934-9424	2022

(B) Conferences/Workshops/Symposia Proceedings

Author(s)	Title of the paper	Name of Conference and dates	ISBN/ISSN No.	Venue	Year
D.V.Siva Krishna Rao K, B Rajanarayan Prusty, Hareesh Myneni	Bright Sunshine Duration Index-Based Prediction of Solar PV Power Using ANN Approach	International Conference on Intelligent Controller and Computing for Smart Power 2022 (ICICCSP 2022), July 21st-23rd, 2022 !!	ISBN/ISSN	Hyderabad, India	2022
D.V.Siva Krishna Rao K, M Premalatha	Modeling and prediction of SPV energy generation using	IEEE International Conference on Innovations in Power and Advanced Computing	ISBN/ISSN	VIT, Vellore	2021

	weather parameters	Technologies", Accepted, i-PACT-2021, VIT, Vellore			
D.V.Siva Krishna Rao.K, Madhav Kumar, Ranju Bharti	Conventional and Hybrid Perturb & Observe based Maximum Power Point Tracking for Solar System	International Conference On Vision Towards Emerging Trends In Communication And Networking" 30 - 31 MARCH 2019	ISBN:978-1-5386-9353-7		2029
D.V.Siva Krishna Rao.K , Madhav Kumar	Modelling and Parameter Estimation of Solar Cell using Genetic Algorithm	International Conference on Intelligent Computing and Control Systems, [ICICCS 2019], 17 May 2019	Electronic ISBN:978-1-5386-8113-8		2019
D.V.Siva Krishna Rao K, Ashish Kumar, Promit Kumar Saha, Shashank Shekhar;	Cascaded Artificial Neural Network based MPPT algorithm for PV application	International conference of Electronics, Communication and Aerospace Technology (ICECA)	Electronic ISBN:978-1-7281-0167-5		2019
D.V.Siva Krishna Rao K , B.Indu Rani, G.Saravana Ilango	Estimation of daily global solar radiation using temperature, relative humidity and seasons with ANN for Indian stations	International conference on POWER, SIGNALS, CONTROL AND COMPUTATIONS held in Vidya Academy of Science and Technology, on JAN 2012	Electronic ISBN:978-1-4673-0449-8	Thrissur, Kerala, India	2012