

Dr. Sushmita Sarkar

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|----------------------------------|----------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| <b>Assistant Professor</b>       |                                                                            |  |
| <b>Educational Qualification</b> | Ph.D- at VTU,Belagavi<br>M.E - Power and Energy Systems                    |                                                                                     |
| <b>Experience</b>                | Teaching: 14 Years                                                         |                                                                                     |
| <b>Area of Interest</b>          | Power Systems, Photovoltaic System and Power quality                       |                                                                                     |
| <b>Date of Joining at RVCE</b>   | 26/09/2016                                                                 |                                                                                     |
| <b>Email</b>                     | <a href="mailto:sushmitasarkar@rvce.edu.in">sushmitasarkar@rvce.edu.in</a> |                                                                                     |

**UG Project Guided:** 14

**PG Project Guided:** 01

**Publication Details:**

International Journal : 04

International Conferences : 03

Book Chapter : 01

**International journals**

1. Sushmita Sarkar, K. Uma Rao, Prema V, M.S. Bhaskar, Sanjeevikumar Padmanaban, Jayanth Bhargav, ***"A model for effect of partial shading on PV panels with experimental validation"*** , Energy Reports, Volume 12 , December 2024, Pages 3460-3469, ISSN- 2352-4847, <https://doi.org/10.1016/j.egyr.2024.09.015> (Elsevier scopus-Q2).
2. Sushmita Sarkar, M.S. Bhaskar, K. Uma Rao, Prema , Dhafer Almakhlles and Umashankar Subramaniam ***"Solar PV network installation standards and cost estimation guidelines for smart cities"***, Alexandria Engineering Journal-Q1 Elsevier, June2021, ISSN 1110-0168, <https://doi.org/10.1016/j.aej.2021.06.098>.
3. Mohit Tiwari, Harsh Kataria, Sushmita Sarkar, ***"Designing and Fault Analysis of a Charge Controller for PV System"***, International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056, Volume: 07 Issue: 01 | Jan 2020,p-ISSN: 2395-0072, PP- 1982-87.
4. Sushmita Sarkar, K. Uma Rao, Prema V, Jayant Bhargav, Shourya T.R , ***"Novel Modular LS-SVM Based Regression Model for Prediction of Solar Power"***, International Journal of Engineering Sciences and Management - A Multidisciplinary Journal of VTU 2019; Vol: 1, No: 1, pp: 04-10.
5. Prema V, Sushmita Sarkar, Uma Rao K and Amrutha Deshkulkarni, ***"LSTM Based Deep Learning Model for Accurate Wind Speed Prediction"***, ICTACT journal on data science and machine learning, december 2019, volume: 01, issue: 01, pp 6-11.

**International Conferences**

1. Sushmita Sarkar, K. U. Rao, J. Bhargav, S. Sheshaprasad and A. Sharma C A, ***"IoT Based Wireless Sensor Network (WSN) for Condition Monitoring of Low Power Rooftop PV"***

**Panels"**, 2019 IEEE 4th International Conference on Condition Assessment Techniques in Electrical Systems (CATCON), Chennai, India, 2019, pp.1-5, doi: 10.1109/CATCON47128.2019.CN004.

2. Sushmita Sarkar, K. Uma Rao, Prema V, Jayant Bhargav, Shrikesh Sheshaprasad, Anirudh Sharma C A, "**Signature Analysis of Electrical Faults in Standalone PV Systems with Storage**" [3rd IEEE- International Conference on Recent Developments in Control, Automation & Power Engineering \(RDCAPE\)](#)-2019, 10-11<sup>th</sup> oct 2019, Noida, India . ISBN-978-1-7281-2068-3/19/©2019IEEE , DOI: [10.1109/RDCAPE47089.2019.8979080](#), PP-472-476
3. Sushmita Sarkar, K. U. Rao, "**Impact of pollutants on Solar Panel Performance in Tropical Countries**", presented in International Conference on Recent Trends in Science & Technology-2020 (ICRTST - 2020), Proceedings, April 8th & 9th, 2020, Mysore, INDIA

#### Book Chapter:

1. Sushmita Sarkar, K. U. Rao, Prema V, J. Bhargav, S. Sheshaprasad and A. Sharma C A, "**User Interactive GUI for Integrated Design of PV Systems**", Intelligent Renewable Energy Systems, (243–266), © 2022 Scrivener Publishing LLC (Scopus).

#### Achievement

- Delivered online lectures for **VTU e-sikhana on Power Quality (2021)**.
- Delivered online lectures for **VTU e-sikhana on Power System Analysis-2 (2020)**.

#### International Collaboration projects

- Joint international proposal approved for an **ASA project to the German Ministry of Economic Cooperation and Development**. The project proposal is called "Assess and compare the circular economy status of companies in Colombia, Germany and India"

#### Funded Projects Handled

- Finished VGST Project under the scheme Research Grant (5 Lakh) for 1 year period on project titled "High Performance Self-Cleaning Solar PV Microgrid".

#### Consultancy and Training

- Handled 3 batches of Suryamitra, NISE, MNRE (15L per batch)
- Part of Internship training on "Greening Young Minds" in the area of Renewable Energy by KREDL (Karnataka Renewable Energy Development Limited, Nodel Agency of Government of Karnataka) and IWPA (Indian Wind Power association).

#### Talk delivered

- Delivered talk on "Solar PV System Design" on 5-3 2021 in the workshop organised by UGC-Human Resource Development Center , JNTUH, Hyderabad.
- Delivered talk on "Load Flow analysis" on 9-3 2021 in the workshop organised by UGC-Human Resource Development Center , JNTUH, Hyderabad.

#### Peer Review

Review activity for **Journal of The Institution of Engineers (India): Series B (2)**

**Social Awareness Program**

President of Urja Energy Swaraj Club towards climate change action node under "Energy Swaraj Foundation" .