

# MACHAVARAM SANDEEP KUMAR

Detail-oriented Electrical Engineer specializing in power systems and energy management.- Proficient in using simulation tools such as MATLAB, NEPLAN and PVSyst. Strong background in the development and maintenance of power generation, transmission, and distribution systems. Seeking to leverage expertise in power engineering to drive advancements in sustainable energy solutions.

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☎ 9704256883

📍 Hyderabad,Telangana, India

## WORK EXPERIENCE

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### **BVRIT HYDERABAD College of Engineering for Women**

Assistant Professor

July 2019 - Present

### **Rishi M.S. Institute of Engineering and Technology for Women**

Assistant Professor

October 2017 - July 2019

### **Vishwa Bharathi College of Engineering**

Assistant Professor

June 2012 - May 2015

## EDUCATION

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### **Jawaharlal Nehru Technological University, Kakinada**

Ph.D(Electrical & Electronics Engineering)

September 2020 - Present

### **S V College of Engineering, Tirupati**

M.Tech.(Electrical & Electronics Engineering) - 74.9

August 2015 - September 2017

- Specialization-Power Systems

### **P.B.R. Visvodaya Institute of Technology & Science, Kavali**

B.Tech.(Electrical & Electronics Engineering) - 73.4

August 2007 - May 2011

## PROJECTS

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### **Meta-Heuristic Method Based Load Frequency Control of Interconnected Power System**

- Developed the Project with MATLAB/SIMULINK

### **Comparative Analysis of Controllers for Power Saving Scheme in EVT Induction Motor Drive**

- Developed the Project with MATLAB/SIMULINK

### **PV Array Fed OFF-BOARD EV Battery Charger**

- Developed the Project with MATLAB/SIMULINK

### **Analysis of Software Tool for Voltage Profile Improvement in IEEE 14-Bus System Using SVC**

- Developed the Project with MATLAB/SIMULINK and NEPLAN Softwares

### **Design and Analysis of Fuzzy and PI controller based MLI-DSTATCOM with SRF theory**

- Developed the Project with MATLAB/SIMULINK

## SKILLS

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- MATLAB/SIMULINK
- NEPLAN
- PVSyst
- Microsoft Office
- Power Electronics
- Battery Management Systems
- Power BI

## CERTIFICATE

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### **Certification on “Electronic Systems Design: Hands-On Circuits and PCB Design with CAD Software”**

- SWYAM-NPTEL Online Courses and Certification.

### **Certificate on Altium Approved Program on “Altium 365 Training Bundle”**

- Altium Certification

### **Certificate on Altium Approved Program on “Altium Designer Essentials-On Demand”**

- Altium Certification

### **Certification on “Computer-Aided Design of Electrical Machines”**

- SWYAM-NPTEL Online Courses and Certification

### **Certification on “Design of Photovoltaic Systems”**

- SWYAM-NPTEL Online Courses and Certification

### **Certification on “Introduction to battery-management systems”**

- Authorized by University of Colorado System and offered through Coursera.

### **Certification on “AI For Everyone”**

- Authorized by deeplearning.ai and offered through Coursera

## LANGUAGE

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**English** Advanced

**Telugu** Native

## AWARD

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### **Best Paper** S V College of Engineering, Tirupati

- Received “Certificate of Merit” for best paper in National Conference on Trends in Engineering and Technology (NCTET-2K17) held at SV Colleges, Tirupati.

## Publications

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- Guruswamy Revana, Sujatha Banka, Bhavya Kanchanapalli, Babita Gupta, Amritha K and Machavaram Sandeep Kumar, “Intelligent Planning and Operation of Power Systems during Load Change: A Case Study of Indian Scenario during Covid-19 Pandemic”, Journal of Xidian University, ISSN No:1001-2400.
- Sandeep Kumar M., Sruthi Meghana S., Geyavarshini B., Sai R.P., Sukruthi M. (2021) Analysis of Software Tool for Voltage Profile Improvement in IEEE 14-Bus System Using SVC. In: Reddy K.A., Devi B.R., George B., Raju K.S. (eds) Data Engineering and Communication Technology. Lecture Notes on Data Engineering and Communications Technologies, vol 63. Springer, Singapore.
- Machavaram Sandeep Kumar, S. Rakesh, Dr. Shaik Rafi Kiran, “Fuzzy based MLIDSTATCOM with Synchronous reference frame in distribution network” IJSETR, ISSN:2319-8885, Vol.06, Issue.20, June-2017, Pages:3850-3855.
- Machavaram Sandeep Kumar, S. Rakesh, Dr. Shaik Rafi Kiran, “Design and Analysis of Fuzzy and PI controller based MLI-DSTATCOM with SRF theory” IJAERS, ISSN: 2349-6495(P) / 2456-1908(O), Special issue-5.