

CURRICULUM VITAE



Name : **KALYAN RAJ KANIGANTI**
Father's name : **Mr. K. Bhaskara Rao**
Date of Birth : **23rd July 1987**
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Educational Qualifications:

Year	Degree & Specialization	Institute
2023-24	AICTE PG Certificate program on IoT	IIITDMK, KURNOOL
2012-2017	PhD (Full-Time)	University College of Engineering, Jawaharlal Nehru Technological University, Kakinada
2009 – 2011	M.Tech (Power Electronics and Power Systems)	K L University, Vijayawada Passed in Merit with 9.1 (Cpga)
2004-2008	B.Tech (EEE)	Acharya Nagarjuna University, Passed in First Class with 62%
2002-2004	12 th Class	Board of Intermediate Education Passed in Merit with 91.6%
2001-2002	10 th Class	Board of secondary education

PhD Guidance:

Name of the registered University	No of Students Registered
Jawaharlal Nehru Technological University, Kakinada	1
GIET University, Gunpur	1
Total	2

Fields of Research Interest:

- Distributed Generation: Modeling of Induction generators, solar PV Modelling, Control of power converters for grid integration
- Application AI Techniques to power systems Control
- Application of power electronic converters in power system control
- Application of Machine learning to Power system Forecasting

Computer Skills:

Sl. No.	Skill Title	Skill Level (Basic/Intermediate/Proficient)	Total Experience (years)	Last Used (Year)
1	C Language	Intermediate	4	2018
2	Mi-Power	Intermediate	2	2018
3	dSPACE(DS1103)	Intermediate	4	2021
4	Python	Proficient	2	2022
5	MatLab (Coding/Simulink)	Proficient	9	2022
6	Python for FPGA	Intermediate	1	2022

Hardware Skills:

- Operation of Self Excited induction generator
- Operation of Doubly-Fed induction generator
- Hand full Knowledge of Intelligent Power Module
- Knowledge of laboratory level hardware components
- Altera Cyclone IV FPGA Board for inverter control.

Strengths:

- **I am currently teaching Python Programming to the under graduate students**
- **Developed IoT for Electrical Applications skill oriented Lab for U.G students.**
- **Designed Modular inverter stack with 20 isolated switches for drive control using FPGA.**
- **Delivered guest lecturers for faculty and students at different platforms.**

Project Details:

- 1. Project Name** : **Co-Ordinated Control of SEIG and DFIG for reactive powerexchange under varying wind speed conditions in a power system network**
- Duration** : **Four Years (PhD)**
- Team Size** : **One**
- Environment** : **Mat Lab,Dspace**
- Description** : **Modelling of DFIG in its Reactive power control Mode and analysis of its ability to control SEIG during varying wind speeds and load conditions.**

Awards

- Received Research Assistantship from TEQIP(World Bank Initiative) during period of pursuing PhD (4Years).
- **Delivered lecture on “MatLab for Electrical Engineering” at UCEK,JNTUK.**
- Invited to deliver oral lecture in the 3rd Renewable Energy Sources - Research and Business conference (RESRB) 2018 will be held on June 18-20, 2018 in Brussels (Belgium)
- Delivered lecture on "**Roof top Solar PV-Challenges and Advances**" at Usharama College of Engineering, Vijayawada, Andhra Pradesh
- Acted as Key Resource person at 5 Day workshop on "**Introduction to advanced Python-Hand on**" at SRGEC,Gudlalleru.
- Acted as resource person at 10 Day FDP on "**Advances in Optimization and Control of Electrical Engineering Systems**" organized by NIT Warangal.
- Qualified **IELTS** with score of 6.5

Student Support Activities

- Teaching courses to under graduate and post graduate students
- Guiding students in doing their academic projects
- Coordinator of Music and Photography Club
- Coordinator to College level Student Professional association (ESCON)
- Conduct workshops for students and Faculty on various latest technologies

Total Experience

S.No	Designation	Institution	Period
1	Assistant Professor	GEC, Gudlalleru	01/06/2018- Till Date
2	Assistant Professor	TKR College of Engineering, Hyderabad	24/12/2016 - 31/05/2018
3	Research Scholar	UCEK, JNTUK, Kakinada	01/09/2012 - 01/12/2016

Teaching Experience : 4.5 Years

Research experience as Research Scholar : 4 Years

Certifications :Passed NPTEL course Python for Data Science with Elite

Publications

International Journals

1. K. Kalyan Raj and R.Srinivasa Rao,“A Novel Equivalent Capacitance Model of DFIG to Study its Reactive Power Control Capabilities and its ability to Stabilize SEIG”, International Journal of Renewable Energy Research, Vol.6, No.2 pp. 561-569, 2016 (**Thomson Reuters ESCI, Impact factor: 8.3**).

Link: <https://www.ijrer.org/ijrer/index.php/ijrer/article/view/3788>

2. K. Kalyan Raj and R. Srinivasa Rao, "Voltage control of SEIG using D-STATCOM and DFIG -A Comparative study", Journal of Engineering Research, Kuwait Journals , Springer GSJ, Vol.5, No.3 pp. 1- 14, 2017. (**Thomson Reuters SCIE, Impact factor: 0.693**).
Link: <https://kuwaitjournals.org/jer/index.php/JER/article/view/1800>
3. Kalyan Raj .K, Srinivasa Rao. R, "Enhancing the Stability of SEIG Connected Distribution System Using Reactive Power Control Capabilities of DFIG under Varying Wind Speeds". Journal of Energy and Power Engineering, Vol.12, No.5,pp. 266-280, 2018 .
4. M Ravindra, R Srinivasa Rao, K Kalyan Raj , "Critical Bus Constrained Optimal PMU Allocation with Zero Injection Modeling for Complete Observability". Indian Journal of Science and Technology, Vol. 9, No.48, Dec.2016. (**Thomson Reuter's Master journal List, Impact Factor : 0.68**) **Link:** <https://indjst.org/articles/critical-bus-constrained-optimal-pmu-allocation-with-zero-injection-modeling-for-complete-observability>
5. Kalyan Raj .K et.al," A Neural Network based MPPT Control with Reconfigured Quadratic Boost Converter for Fuel Cell Application". Journal of Hydrogen Energy, Elsevier Vol. 46, No.9, Feb.2021 (**SCIE, Impact factor: 4.693**)
Link: <https://www.sciencedirect.com/science/article/abs/pii/S0360319920343275>
6. Kalyan Raj .K et.al," Power Enhancement in Partial Shaded Photovoltaic System Using Spiral Pattern Array Configuration Scheme". IEEE Access, IEEE, Aug.2021 (**SCIE, Impact factor: 3.693**).
7. Kalyan Raj .K et.al," Performance Enhancement of Partial Shaded Photovoltaic System With the Novel Screw Pattern Array Configuration Scheme". IEEE Access, IEEE, Vol. 10, Dec.2021 (**SCIE, Impact factor: 3.693**).
8. Kalyan Raj .K et.al," A Novel Array Configuration Technique for Improving the Power Output of the Partial Shaded Photovoltaic System". IEEE Access, IEEE, Vol. 10, Jan.2022 (**SCIE, Impact factor: 3.693**).
9. Published Monograph , Kalyan Raj .K "Voltage control of Self Excited Induction Generator", LAP Lambert Academic Publishing (2012), SBN 10: 3848499681 ISBN 13: 9783848499687.**Link:**https://books.google.co.in/books/about/Voltage_Control_of_Self_Excited_Inductio.html?id=a_dwngEACAAJ&redir_esc=y

10. Kalyan Raj. K , Voltage control of Isolated SEIG for variable speed applications Using MatLab, Published in International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Volume-1, Issue-3, February 2012. (**Scopus Indexed**).

Link: <https://www.ijeat.org/wp-content/uploads/papers/v1i3/C0218021312.pdf>

Patents Published:

1. “Smart Ring main Distribution System” Published on 21/08/2020
File Number: 34/2020

Present Job Profile:

I am presently working in EEE Department, Gudlavalleru college of Engineering, Gudlavalleru.

Research URL:

Research Gate: <https://www.researchgate.net/profile/Kalyan-Raj-3>

Publons : <https://publons.com/researcher/4230101/kalyan-kaniganti/publications/>

Google Scholar: <https://scholar.google.com/citations?user=Ei0ZiJIAAAAJ&hl=en&authuser=1>

References:

1. Dr.R.Srinivasa Rao

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Declaration:

The information furnished above is true to the best of my knowledge.

Station: Vijayawada
Date :14-11-2023

(Dr.K.Kalyan Raj)