



# AALIM MUHAMMED SALEGH COLLEGE OF ENGINEERING

Nizara Educational Campus, Muthapudupet, Avadi IAF, Chennai – 600 055.  
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## DEPARTMENT OF ARTIFICIAL INTELLIGENCE AND DATA SCIENCE

<b>NAME &amp; INITIALS</b>	Dr.M.Thirunavukkarasu	
<b>DESIGNATION</b>	Assistant Professor – Artificial Intelligence and Data Science	
<b>EDUCATIONAL QUALIFICATION</b>	Ph.D	
<b>EXPERIENCE</b>	10 years	
<b>DATE OF JOINING</b>	03.04.2024	
<b>EMAIL ID</b>	<a href="mailto:thirunavukkarasu.m@aalimec.ac.in">thirunavukkarasu.m@aalimec.ac.in</a>	
<b>AREA OF SPECIALISATION</b>	Power system Optimization Artificial Intelligence	

## EDUCATIONAL QUALIFICATION

DEGREE	BRANCH / SPECIALIZATION	INSTITUTION	UNIVERSITY	YEAR
Ph.D (Full Time)	Renewable Energy	Vellore Institute of Technology, Vellore	VIT University, Vellore	2023
M.Tech	Applied Artificial Intelligence	Visvesvaraya National Institute of Tech., Nagpur	VNIT, Nagpur	Pursuing
M.Tech	Power Systems Engineering	B.S. Abdur Rahman Institute of Science & Tech., Chennai	B.S. Abdur Rahman University, Chennai	2012
B.E	Electrical & Electronics Engg.	Ganadipathi Tulsis Jain Engg. College, Vellore	Anna University	2008

## PROFESSIONAL MEMBERSHIPS

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### FDP ATTENDED

Underwent one Week Faculty Development Program on “**Energy Auditing, Accounting and Conservation of Energy**” held at Government College of Engineering, Bargur.

Underwent one Week Faculty Development Program on “**Microprocessors and Microcontrollers**” held at Arulmigu Meenakshi Amman college of Engineering.

### WORKSHOPS ATTENDED

Attended two days workshop on “**Curriculum development for the effective implementation of NEP-2020**” at Madhav Institute of Technology and Science, Gwalior, MP, India.

Attended six days workshop on “**Nature inspired optimization Techniques and Microgrid Applications**” at Silicon Institute of Technology, Sambalpur.

Attended seven days workshop on “**Optimization Techniques for Engineering Applications**” at Rajkiya Engineering College, Sonbhadra.

Attended three days workshop on “**LaTeX**” at Amity School of Engineering and Technology & Amity School of Applied Sciences.

Attended seven days workshop on “**LaTeX**” at Acharya.

Underwent Two- day workshop on “**Recent trend in Technology for Teaching and Research**” held at VIT University, Vellore.

Attended workshop on “**Design and Implementation of Power Electronics Converters Using MATLAB**” at SCSVMV University, Kanchipuram.

Attended ISRO sponsored two days national workshop on “**Advances in Renewable Energy Technologies-ARET’15**” at N.G.P. Institute of technology, Coimbatore.

Attended one day national workshop on “**Developing Effective Research Publications, Proposals & Patents**” at AGNI College of technology, Chennai.

### SEMINARS/WEBINARS ATTENDED

Attended five days webinar on “**Challenges, Issues, Designing & Grid Management for Grid Connected Solar/Wind Energy Systems**” at Bangalore university, Bengaluru.

Attended one day webinar on “**Real Time Simulation of Microgrid using OPAL-RT Tech**” at Bangalore University, Bengaluru.

Attended one day value added program on “**Smart grid protection using intelligent Electronic devices and SCADA & Patents**” at VIT University, Vellore.

### PUBLICATION DETAILS

- M. Thirunavukkarasu**, Y. Sawle, and H. Lala, “A comprehensive review on optimization of hybrid renewable energy systems using various optimization techniques,” *Renew. Sustain. Energy Rev.*, vol. 176, p. 113192, 2023. (SCI/IF: 16.6)
- M. Thirunavukkarasu**, Y. Sawle, and H. Lala, “Techno-Economic-Environmental Analysis of Off-Grid Hybrid Energy Systems using Honey Badger Optimizer,” *Renewable Energy* (2023):119247.(SCI/IF: 8.7)
- M. Thirunavukkarasu**, H. Lala, and Y. Sawle, “Reliability index based optimal sizing and statistical performance analysis of stand-alone hybrid renewable energy system using metaheuristic algorithms,” *Alexandria Eng. J.*, vol. 74, pp. 387–413, 2023. (SCI/IF: 6.62)
- M. Thirunavukkarasu** and Y. Sawle, “An Examination of the Techno-Economic Viability of Hybrid Grid-Integrated and Stand-Alone Generation Systems for an Indian Tea Plant,” *Front. Energy Res.*, vol. 10, 2022. (SCI/IF: 4.008)
- M. Thirunavukkarasu** and Y. Sawle, “A Comparative Study of the Optimal Sizing and Management of Off-Grid Solar/Wind/Diesel and Battery Energy Systems for Remote Areas,” *Front. Energy Res.*, vol. 9, 2021. (SCI/IF: 4.008)
- Sundar, G., **M. Thirunavukkarasu**, and C. Dhinesh Kumar. " Ideal Site of Shunt FACTS Devices for Power Flow Control in Long Transmission Line." *Research Journal of Applied Sciences, Engineering and Technology* 9.10 (2015): 850-855.
- J. Guru Venkatesh, **M. Thirunavukkarasu** , Sundar, G “Damping Enhancement of Multi Parallel-Operated Offshore PMSG Based Wind Turbine-Using STATCOM ” is published in *Research Journal of Applied Sciences*, Year:2014 Volume:9, Issue:8, Page No:496-502, DOI;10.3923/rjasi.2014.496.502
- S. Shanmugam , C. Dhinesh kumar, **M. Thirunavukkarasu** “Protection and Power Quality Control of Grid-Connected Power Electronic Converters” is published in *International Journal of Latest Engineering and Management Research*, ISSN: 2455-4847 || REETA-2K16 || PP. 620-633.
- Y. Sawle and **M. Thirunavukkarasu**, “Chapter 9 - Techno-economic comparative assessment of an off-grid hybrid renewable energy system for electrification of remote area,” in *Design, Analysis, and Applications of Renewable Energy Systems*, A. T. Azar and N. A. Kamal, Eds. Academic Press, 2021, pp. 199–247. (Elsevier/ Scopus Indexed)
- M. Thirunavukkarasu** and Y. Sawle, “Smart Microgrid Integration and Optimization,” in *Active Electrical Distribution Network*, John Wiley & Sons, Ltd, 2021, pp. 201–23
- M. Thirunavukkarasu** and Y. Sawle, “Design, analysis and optimal sizing of standalone PV/diesel/battery hybrid energy system using HOMER,” *IOP Conf. Ser. Mater. Sci. Eng.*, vol. 937, no. 1, p. 12034, Sep. 2020. (Scopus Indexed)

### CONFERENCE DETAILS

- Participated in the National conference on the topic of “**A Hybrid-wind – Solar energy system – A new rectifier topology**” at C. Abdul Hakeem college of Engineering & Technology.
- Participated in the National conference on the topic of “**Damping enhancement of multi parallel operated offshore PMSG based wind turbine using STATCOM**” at Easa college of Engineering and Technology.
- Participated in the International conference on the topic of “**Stability analysis of Parallel operated PMSG based wind turbine using STATCOM**” at Cape institute of Technology.