

# CURRICULUM VITAE



<b>NAME</b>	<b>Dr. Mahalakshmi Ganapathie</b>
<b>POSITION</b>	<b>Senior Power system Engineer</b>   Expertise in ETAP   PSSE   PSCAD   DigSILENT   Technical Training Facilitator   Specializing in Renewable Energy & Grid Integration
<b>TOTAL EXPERIENCE</b>	<b>19 years</b>
<b>ORGANIZATION / PERIOD</b>	<b>JOB RESPONSIBILITIES</b>
<b>Power Projects, Chennai - India (Nov 2019 - Present)</b>	<ul style="list-style-type: none"> <li>➤ Lead and support the development and implementation of solutions required by the power systems industry.</li> <li>➤ Preparation of technical and business documentation, including project reports, user guides, process reports, and project proposals.</li> <li>➤ Customer liaison, including in-person and remote meetings for technical and project discussions.</li> <li>➤ Performing power system studies - network modeling and simulation.</li> <li>➤ Providing support and guidance to fellow engineers.</li> <li>➤ Conducting technical training sessions for corporates and new employees.</li> </ul>
	<p><b>PROJECTS:</b></p> <ul style="list-style-type: none"> <li>➤ <b>600MW OGCT Plant, Insulation Coordination Study in Singapore</b>  <b>Scope:</b> Temporary Over Voltage, Slow Front Overvoltage, Fast Front Overvoltage, Transformer Energization Study, PSS Voltage Regulator Stability Study, Transient Stability Study, <b>Grid Compliance</b>  <b>Simulation Software:</b> PSSE &amp; PSCAD</li> <li>➤ <b>220kV GIS Substation, Power System Study in Cambodia</b>  <b>Scope:</b> Temporary Over Voltage, Slow Front Overvoltage, Fast Front Overvoltage, Transformer Energization Study, Ferro resonance, <b>Grid Compliance</b>  <b>Simulation Software:</b> PSSE &amp; PSCAD</li> <li>➤ <b>Banyan CCP4 Plant, Insulation Coordination Study in Singapore</b>  <b>Scope:</b> Temporary Over Voltage, Slow Front Overvoltage, Fast Front Overvoltage, Transformer Energization Study, PSS Voltage Regulator Stability Study, Transient Stability Study, <b>Grid Compliance</b>  <b>Simulation Software:</b> PSSE &amp; PSCAD</li> <li>➤ <b>220kV GIS DATA CENTER, Insulation Coordination Study in India</b>  <b>Scope:</b> Temporary Over Voltage, Slow Front Overvoltage, Fast Front Overvoltage, Transformer Energization Study, <b>Grid Compliance</b>  <b>Simulation Software:</b> PSSE &amp; PSCAD</li> <li>➤ <b>98MW Hydro Power Evacuation Study in Malaysia</b>  <b>Scope:</b> Load Flow Analysis, Short Circuit Analysis, N-1 Contingency Dynamic studies  <b>Simulation Software:</b> PSSE</li> <li>➤ <b>APOC PDH - UTOS 220 kV GIS Substation, Saudi Arabia</b>  <b>Scope:</b> Insulation Coordination, Ferro resonance  <b>Simulation Software:</b> PSCAD</li> </ul>

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- **220/33kV wind farm pooling substation, Gujarat**  
**Scope:** Insulation Coordination  
**Simulation Software:** PSCAD
- **LHR095 Data Center, UK**  
**Scope:** P28, Load Flow, Short Circuit, Relay Coordination  
**Simulation Software:** ETAP, DIgSILENT Power Factory
- **ST Telemedia Global Data Centres, New Delhi, India**  
**Scope:** Load Flow Study, Short Circuit Study, Relay Coordination Study, Arc Flash Analysis.  
**Simulation Software:** DIgSILENT Power Factory
- **Nxtra Data Center Project, Pune, India**  
**Scope:** Load Flow Analysis, Short Circuit Analysis, Motor Acceleration Study, Harmonic Analysis, Relay Coordination Study, Transient Stability, Arc Flash Analysis,  
**Simulation Software:** ETAP
- **Western Taxiway and Stand Development, Hamad International Airport, Qatar**  
**Scope:** Load Flow Analysis, Short Circuit Analysis, Relay Coordination Study, Arc Flash Analysis.  
**Simulation Software:** ETAP
- **Power System Studies for 9.5 MW Solar PV Plant, NY, US**  
**Scope:** Grid Code Compliance  
**Simulation Software:** ETAP, DIgSILENT Power Factory
- **90.88 MWac Large Scale Solar Photovoltaic Plant at Sungai Petani, Kedah, Malaysia**  
**Scope:** Relay Coordination Study  
**Simulation Software:** ETAP
- **Vermillion Rise 185MW Solar Farm, USA**  
**Scope:** LF, SC, RC, AF  
**Simulation Software:** ETAP
- **Pyramid Lake Micro Grid Project, USA**  
**Scope:** LF, SC, RC, AF  
**Simulation Software:** ETAP
- **Burnt Peak Micro Grid Project, USA**  
**Scope:** LF, SC, RC, AF  
**Simulation Software:** ETAP
- **6.5MW Solar+5.5MW Electrolyser+BESS in India**  
**Scope:** LF, SC, Transient  
**Simulation Software:** ETAP, Digsilent
- **Colt Data Center Project, Mumbai, India**  
**Scope:** Harmonic Analysis, Relay Coordination Study, Transient Stability, Arc Flash Analysis.  
**Simulation Software:** ETAP

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	<ul style="list-style-type: none"> <li>➤ <b>Grid Impact Assessment, Sierra Leone</b>  <b>Scope:</b> Load Flow Analysis, Short Circuit Analysis, Transient Stability, Harmonic Analysis.  <b>Simulation Software:</b> ETAP</li> </ul> <p><b>Corporate Trainings:</b></p> <ul style="list-style-type: none"> <li>➤ Gird Compliance and Insulation Coordination Study for Hitachi Energy: Hitachi Energy (PSSE/ PSCAD Training</li> <li>➤ Static and Dynamic training for Ramboll India Pvt Ltd- Digsilent Power factory</li> <li>➤ Gird Compliance, Insulation Coordination and Power System Study for ABB: Pinnacle Infotech- Load Flow, Short Circuit, Harmonic Analysis and Arc Flash Study ETAP/PSSE/PSCAD</li> <li>➤ Insulation Coordination Study for Kent- PSCAD</li> <li>➤ Nordex Solinganallur- Load Flow, Short Circuit, Harmonic Analysis and Arc Flash Study - ETAP</li> <li>➤ GE Vernova - Load Flow, Short Circuit, Harmonic Analysis and Arc Flash Study – ETAP</li> <li>➤ VELLD Pvt.Ltd -Malaysia -DigSillent Power Factory- Quasi dynamic load flow studies for Renewable Energy.</li> <li>➤ Power System Study training for Novatech Pvt Ltd: Load Flow, Short Circuit, Harmonic Analysis and Arc Flash Study - ETAP</li> <li>➤ Power System Study training for Rita Engineer &amp; Consultants- Load Flow, Short Circuit, Harmonic Analysis and Arc Flash Study- Digsilent Powerfactory</li> <li>➤ ZECO- Tanzania training on transmission line, Distributed energy systems and substation design Using ETAP/ PSCAD.</li> <li>➤ Linxon – ETAP software training on industrial power system Real - Time case studies and PSCAD insulation coordination study.</li> </ul>		
<b>CAREER EXPERIENCE</b> (Nov 2005 – Nov 2019)	<ul style="list-style-type: none"> <li>➤ 2019 till now – Power System Engineer – Power Projects, Koduvai.</li> <li>➤ 2013-2023 – Dept of EEE, R&amp;D– ACT, Thalambur.</li> <li>➤ 2012-2013 – Assistant Professor – SSIET, Chembarambakkam.</li> <li>➤ 2007-2010 – Lecturer – VSCET, Thalambur.</li> <li>➤ 2005-2007 – Technical Assistant, Battery Design– ElectroNICS.</li> </ul>		
<b>CODES &amp; STANDARDS FAMILIARITY</b>	<b>IEC, IEEE, IS, ANSI</b>		
<b>PROFESSIONAL AND SOFTWARESKILLS</b>	<b>ETAP, PSCAD, PSSE, DigSILENT Power Factory, MATLAB.</b>		
<b>EDUCATIONAL QUALIFICATION</b>			
<b>Degree / College or School</b>	<b>Marks</b>	<b>Year of Passing</b>	<b>Class</b>
<b>PhD - Anna University, Chennai. College of Engineering, Guindy, Tamil Nadu, India</b>	-	2022	-
<b>M.E.(PED) Jerusalem College of Engineering.</b>	87%	2012	FWD
<b>B.E. (Electrical and Electronics Engineering) Jerusalem College of Engineering</b>	80%	2004	FWD
<b>PAPERS PUBLISHED IN THE INTERNATIONAL JOURNALS AND CONFERENCES:</b>			

## CURRICULUM VITAE

S.No	Title of the Paper	Details of publication	DOI / Sponsored
1.	Evaluation of hybrid controllers for space vector modulation-inverter driven permanent magnet synchronous motor-pump assembly	ISA Transactions Volume 128, Part A, September 2022, Pages 635-649	<a href="https://doi.org/10.1016/j.isatra.2021.09.001">https://doi.org/10.1016/j.isatra.2021.09.001</a>
2.	Semi-Pilot Cell-based Maximum Power Point Tracking and Coordinated Current Control-based PMSM drive for Standalone Solar Water Pumping System	Journal of Process Control Volume 112, April 2022, Pages 57-68	<a href="https://doi.org/10.1016/j.jprocont.2022.03.003">https://doi.org/10.1016/j.jprocont.2022.03.003</a>
3.	Cost-Effective High-Gain DC-DC Converter for Elevator Drives using Photovoltaic Power and Switched Reluctance Motors.	Frontiers in Energy Research, 06 May 2024 Sec. Solar Energy Volume 12 - 2024	<a href="https://doi.org/10.3389/fenrg.2024.1400651">https://doi.org/10.3389/fenrg.2024.1400651</a>
4.	Environmental Assessment of the Sustainable Mobility Program for Urban Transport Services in Berkane City, advancing a Moroccan decarbonization Strategy.	Received: 29 Apr 2024 manuscript reports at this link: <a href="https://susy.mdpi.com/user/manuscripts/resubmit/3f3225910fade4c94f93846fd1f8f012">https://susy.mdpi.com/user/manuscripts/resubmit/3f3225910fade4c94f93846fd1f8f012</a>	Manuscript ID: wevj-3012066 Final revision submitted
5.	A Single-Phase Matrix Converter for Aviation Ground Power Unit	<a href="#">2012 International Conference on Computing, Electronics and Electrical Technologies (ICCEET)</a>	<a href="https://doi.org/10.1109/ICCET.2012.6203794">https://doi.org/10.1109/ICCET.2012.6203794</a>
6.	Matrix Converter for Mobile Utility Power Supply Unit	International Conference on Recent Trends in Engineering	Pallava Engineering College
7.	A bidirectional single-phase quasi-Z-source matrix converter	International Conference on Emerging Trends in Engineering & Technology	Nehru institute of Engineering & technology
8.	A simple control loop for matrix converters-AGPU Application	International Journal of Power Electronics and Drive Systems IEEE International Conference on Renewable and Sustainable Energy,	<a href="http://dx.doi.org/10.11591/ijpeds.v4i1B.5340">http://dx.doi.org/10.11591/ijpeds.v4i1B.5340</a>
9.	CPLD based remote speed controller of an Induction motor through frequency variation	National conferences on Advances in Information and Communication Technology	Sri Venkateswara College of Engineering

### PERSONAL DETAILS

<b>NATIONALITY</b>	<b>Indian</b>
<b>AGE</b>	<b>03<sup>rd</sup> Jan 1983 (42 yrs)</b>
<b>LANGUAGES KNOWN</b>	<b>Tamil, English, Hindi</b>
<b>PERMANENT ADDRESS</b>	<b>No.7, Sengani Amman Kovil First Street, Maduvinkarai, Guindy, CHENNAI 600032.</b>

I hope my qualifications and experience meet your requirements, and I look forward to a positive offer.

Thanking you,

Place: Chennai



Mahalakshmi Ganapathie