MONISH S

| Cuddalore, Tamil Nadu | 9786020388|monishsivanesan@gmail.com

Linked In profile

CAREER OBJECTIVE

An electrical engineer with a passionate and enthusiastic about EV and green-energy for sustainable development aspires towards the evolving knowledge in EV domain. Seeking to work in esteemed organization in which I can utilize and build upon my current knowledge and software skills for modern automotive industry.

ACADEMIC DETAILS

PG certification in Electric Vehicle Design & Development, skill lync, Chennai. - (Present-2022)

B.E -EEE S.A ENGINEERING COLLEGE, Chennai | **8.03 CGPA** - (2017-2021)

HSC, Tagore Matric Hr. Sec School | Attur , Salem| **74%** - (2017)

SSLC, Tagore Matric Hr. Sec School | Attur , Salem| **70%** - (2015)

TECHNICAL SKILLS

***Scripting Skills** – MATLAB – Programming, Troubleshooting, Analyzing.

***Modeling Skills** – Simulink, Simscape ,& Model-Based Development.

***Protection Skills** - Electrical schematics development, Site Acceptance configuration of IED.

***EV Domain Skills** - Battery Technology, Control System of EV, EV Powertrain. MIL, SIL.

EXPERIENCE

***Protection Engineer**

Voltech Engineers Pvt Ltd. (Sep2021 – March2023).

* Validate the configuration of the IED with relay software and test the numerical relay using the test equipment and software

* Oversee the commissioning of control and relay panel, collaborate with equipment testing team, site-in charge and site coordinators to prepare strategic planning and execution

* Experienced in on-site project delivery and commissioning of electrical equipment.Familiar with high voltage level electrical systems and electrical safety protocols.

* Preparation of Functional Design Specifications, Technical Specifications ,General Arrangement Drawings, Circuit Diagrams, System I/O Schedules, scheme Checking.

* Develop the project configuration by using the ABB ,GE, SIEMENS,MICOM tools and software's.

COURSE PROJECTS HANDLED

- **Design of an Electric Vehicle** - System-level configurations and the model parameters of the Electric vehicle to be modeled are estimated.

*The model is driven by a DC motor powered by a battery that uses a standard driving cycleas an input reference

Various output parameters are obtained while making a comparative study based on the reference input where the drive cycle is compared with the output cycle and estimating thestate-of-charge (SOC) of the vehicle after the completion of one cycle.

- **Speed Control of a Direct Current (DC) motor**-the Proportional, Integral, and Derivative (PID) control design knowledge gained in the training to design, develop and test a controller to maintain a desired speed for the motor. .
- **Adaptive Cruise Control :-**
  - Created a model for adaptive cruise control algorithm as per requirement using state flow, as per the model-based development created c codes for the model, model advisor checks, requirement tagging & created Simulink data dictionary.
  - Developing the model by following MBD guidelines like requirement Tagging, SLDD creation, MIL and SIL testing, code generation etc.

- **Battery Pack Design-** how a battery packs is built and calculate the voltage, current and SOC of 10 cells in series. Also simulate the aging and thermal effects at different charge and discharge rates.

- In this project a method is illustrated for battery pack design which is based on theoretical calculations first & then computed on practical basis.
- Cells connected in series is done for magnify the voltage is found by simulation model.
- At different C-rates the thermal effects also vary and SOC also vary over a time and conclude that C-rate affect the life cycle of battery pack.

- **Vehicle Direction Detection:-**

  - Created a model for vehicle detection as per the requirement, created SLDD, tested model according to the MAAB guidelines, tagged to require document & c code generated.
  - Developing the model by following MBD guidelines like requirements Tagging, SLDD creation, MIL and SIL testing, code generation etc.

INTERNSHIP PROJECTS (SKILL LYNC)

- Regenerative braking in EVs with induction motor using Simulink
- Regenerative braking in EVs with DC motor using Simulink
- Electric Vehicle Dynamics For E-rickshaw, SOC Estimation, Distance Travelled For Different Drive Cycles"

CERTIFICATION

- MATLAB Basics// Skill lync
- Simulink Basics // Skill lync
- Introduction to hybrid electric vehicle using MATLAB & Simulink // Skill lync
- Introduction to Electric Vehicle // Skill lync.
- Introduction to Control of Electric Vehicle // Skill lync
- Li-ion Battery System design in EV & ES // Skill lync
- Simulation and Design of Power Converters for EV using MATLAB and Simulink // Skill lync
- Design Concepts of Power Electronic Converters for Industries. // Skill lync

WORKSHOPS CERTIFICATION

- Model based Development for ADAS