

**Course Title: Photovoltaic Systems for Automotive**

**Course Code: EEA 213**

**Course Background / Summary:**

As the automotive industry undergoes a transformative shift towards sustainable technologies, Photovoltaic (PV) Systems have emerged as a crucial component in enhancing vehicle efficiency and reducing environmental impact. Harnessing solar energy to power automotive systems not only reduces reliance on traditional fuels but also contributes to a greener and more sustainable transportation ecosystem.

**Course Objectives:**

- Provide comprehensive insights into the integration of Photovoltaic Systems in automotive design and functionality.
- Equip participants with the knowledge to optimize solar energy utilization for enhanced vehicle performance.
- Explore the latest advancements in PV technology and their application in the automotive sector.
- Foster an understanding of the environmental and economic benefits of PV-powered vehicles.

**Target Audience:**

- Automotive engineers and designers seeking to incorporate PV systems into their vehicle prototypes.
- Researchers and students aiming to deepen their understanding of Photovoltaic Systems in the context of automotive applications.

**Course Duration: 3 Days**

**Course Contents**

**1.0 Introduction to Photovoltaic Systems for Automotive**

**5.0 Building and testing small-scale PV system**

**2.0 Fundamentals of Photovoltaic Technology**

**6.0 Emerging technologies in PV and their potential impact on automotive design**

**3.0 PV System Components and Integration**

**4.0 Optimizing Solar Energy for Vehicle Efficiency**