



## SREE VENKATESWARA COLLEGE OF ENGINEER

An ISO 9001:: 2015 Certified Institution  
(Approved by AICTE, New Delhi and Affiliated to JNTU, Anantapur)  
Northrajupalem (Vi), Kodavaluru(M), S.P.S.R Nellore (Dt)-524316

### DEPARTMENT OF ELECTRICAL & ELECTRONICS ENGINEERING

#### LIST OF GUEST LECTURES/TECHNICAL TALK

ACADEMIC YEAR	DATE	YEAR	TOPIC	RESOURCE PERSON
2021-22	08-07-2021	III YEAR (2018 BATCH)	Electric Vehicles	D.Lenine, Professor, RGM CET, Nandyal
	20-06-2021	II,III&IV YEAR and outside participants	Fractional Order Control Design & Implementation (Webinar)	Dr.M.Arounassalame, Associate Professor, PEC, Pondicherry

### A GUEST LECTURE ON “ELECTRIC VEHICLES”

Date: 12-07-2021

#### REPORT

The Electrical and Electronics Engineering department has organized a **Guest Lecture** on “ELECTRIC VEHICLES” on **08<sup>th</sup> July, 2021**. The resource person was **Dr. D. Lenine**, Professor, Rajeev Gandhi Memorial College of Engineering & Technology, Nandyal. Dr. P.Kumar Babu, Principal of Sree Venkateswara College of Engineering inaugurated the guest lecture along with Mr. V. Anil Kumar, Head of the Department of Electrical & Electronics Engineering at Digi Hall of SVCN. The 3<sup>rd</sup> year students of EEE department have attended this guest lecture.

#### **Resource Person Profile:**

**Dr. D. Lenine** working as a Professor, in Rajeev Gandhi Memorial College of Engineering & Technology, Nandyal. from October 2006. He has 15 years of academic experience. He completed his Doctor of Philosophy (Ph.D) in Power Quality in power Electronics from JNTU, Kakinada. He published total 10 research papers in international reputed publications in the areas of power electronics, renewable energy technologies, power quality and more.

## About ELECTRIC VEHICLES

An **electric vehicle (EV)** is a vehicle that uses one or more electric motors for propulsion. It can be powered by a collector system, with electricity from extravehicular sources, or it can be powered autonomously by a battery (sometimes charged by solar panels, or by converting fuel to electricity using fuel cells or a generator). EVs include, but are not limited to, road and rail vehicles, surface and underwater vessels, electric aircraft and electric spacecraft. For road vehicles, together with other emerging automotive technologies such as autonomous driving, connected vehicles and shared mobility, EVs form a future mobility vision called Connected, Autonomous, Shared and Electric (CASE) Mobility. EVs first came into existence in the late 19th century, when electricity was among the preferred methods for motor vehicle propulsion, providing a level of comfort and ease of operation that could not be achieved by the gasoline cars of the time. Internal combustion engines were the dominant propulsion method for cars and trucks for about 100 years, but electric power remained commonplace in other vehicle types, such as trains and smaller vehicles of all types.

Government incentives to increase adoption were first introduced in the late 2000s, including in the United States and the European Union, leading to a growing market for the vehicles in the 2010s. Increasing public interest and awareness and structural incentives, such as those being built into the green recovery from the COVID-19 pandemic, is expected to greatly increase the electric vehicle market. During the COVID-19 pandemic, lockdowns have reduced the amount of greenhouse gases from gasoline or diesel vehicles. The International Energy Agency said in 2021 that governments should do more to meet climate goals, including policies for heavy electric vehicles. Electric vehicle sales may increase from 2% of global share in 2016 to 30% by 2030. As of July 2022 global EV market size was \$280 billion and it is expected to grow to \$1 trillion by 2026.<sup>[11]</sup> Much of this growth is expected in markets like North America, Europe and China; a 2020 literature review suggested that growth in use of electric 4-wheeled vehicles appears economically unlikely in developing economies, but that electric 2-wheeler growth is likely. There are more 2 and 3 wheel EVs than any other type.

The forenoon session started with keynote lecture on ELECTRIC VEHICLES, introduces the students to the relevance of electric vehicles, current demand in EV industry and opportunities of skilled EV engineers. Students learnt the history and evolution of

electric vehicles and what goes into building them. Students learnt about the actual impact of EVs in the world.

The afternoon session continued with the students learnt about modelling the conversion of an ICE vehicle to electric. They choose a target vehicle in the Indian market, finalize the vehicle specifications. And also discussed about the design aspects of electric vehicles in related to the present market scenario and associated components and technology required to built a electric vehicle.

**A GUEST LECTURE ON**  
**“Fractional Order Controller- Design & Implementation”**

Date: 22-06-2021

**REPORT**

The Electrical and Electronics Engineering department has organized a one day national level webinar on “**Fractional order controller- Design and implementation**” on **20<sup>th</sup> June, 2021**. The resource person was **Dr. M.Arounassalame**, Associate Professor, Department of EEE, Pondicherry Technological University, Pondicherry. The 3<sup>rd</sup> year, 4<sup>th</sup> year students of EEE department and teaching faculty have attended this webinar.

For this webinar 115 members are registered through Google form. In this webinar totally 105 members were participated from various engineering colleges among which 48 members were teaching faculty and remaining 57 members were students from the department of Electrical & Electronics Engineering. For this online webinar gotomeeting platform is used.




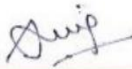

The session started at 10AM on 20<sup>th</sup> June 2021, initially it was addressed by Dr. P. Kumar Babu, Principal & Professor of Sree Venkateswara College of Engineering, North Rajupalem. After that Mr. V.Anil Kumar, Professor and head of the Department of EEE introduced resource person. Later session was handed over to Dr. M.Arounassalame, Associate Professor, Department of EEE, Pondicherry.

The resource person continued the session with the importance of fractional order control i.e the main advantage of fractional order controller is that it provides a more adjustable time and frequency responses of control system allowing fulfillment of better as well as robust performance.

PID control is a simple structure, which can be easily understood and implanted in practice. They are thus more acceptable controllers in practical applications. The success of fractional order controllers is unquestionable with a lot of success due to emerging effective methods in differentiation and integration of non integer order equation.

Finally vote of thanks by Mrs. S. Narmadha, Associate Professor, Electrical & Electronics Engineering department.

Sample of the certificate issued to the participants:

		
<b>SREE VENKATESWARA COLLEGE OF ENGINEERING</b>		
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<b>DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING</b>		
<b>CERTIFICATE OF PARTICIPATION</b>		
This is to certify that		
Name of the staff		
Designation		
From		
Name of the college		
has actively participated in the one day National level Webinar on <b>“Fractional Order Controller-Design and Implementation-2021”</b> Organized by <i>Sree Venkateswara College of Engineering.</i> Northrajupalem, Nellore, Andhra Pradesh.		
20 <sup>th</sup> June 2021		
		
<b>V. Anil Kumar</b> Vice Principal & HOD EEE		<b>Dr. P. Kumar Babu</b> PRINCIPAL