

## **INNOVATIVE AND BEST PRACTICES IN THE DEPARTMENT**

### **Environment consciousness**

- Energy Audit
- Green Audit
- Public awareness Rally's

### **Innovative Practices**

- Project based learning and experiential learning
- Peer mentoring
- Compulsory Internship to marine industries
- Green Card Systems
- Remedial classes
- Student Centric Learning
- Implementation of Outcome Based Education
- Community Development Program
- Extension Activities

## INNOVATIONS BY THE FACULTY IN TEACHING AND LEARNING

### *Instructional Materials Developed by Faculty*

S. No	Topic Covered	Name of the Faculty	Link
1	Review of Electrical Engineering	Mr. S. Janarthanan	<a href="https://www.youtube.com/watch?v=8hSjtF32Mek">https://www.youtube.com/watch?v=8hSjtF32Mek</a>
2	DC Circuit Breaker and its applications	Mr. S. Janarthanan	<a href="https://www.youtube.com/watch?v=9W2GDN-xsEU">https://www.youtube.com/watch?v=9W2GDN-xsEU</a>
2	Electrical drive system	Mr. S. Janarthanan	<a href="https://www.youtube.com/watch?v=2ItBNF-y48I&amp;t=27s">https://www.youtube.com/watch?v=2ItBNF-y48I&amp;t=27s</a>
3	PSP-Communication Networks	Dr. D. Lakshmi	<a href="https://youtu.be/FsV4a2VPokQ">https://youtu.be/FsV4a2VPokQ</a>
4	Electrical Power system circuit-distribution and electric supply system and IGBT Working	Dr. M. Deva Brinda	<a href="https://youtu.be/XIJZA8qFUoA">https://youtu.be/XIJZA8qFUoA</a>
5	Equal area criterion	Dr. M. Deva Brinda	<a href="https://youtu.be/Ficzr208AXg">https://youtu.be/Ficzr208AXg</a>
6	SCADA	Mr. P. Veerakumar	<a href="https://youtu.be/GGEWM8ZQDwY">https://youtu.be/GGEWM8ZQDwY</a>
7	Temperature sensors	Mr. P. Veerakumar	<a href="https://youtu.be/G6ccCIS6igY">https://youtu.be/G6ccCIS6igY</a>
8	Moving iron and Moving Coil Instrument- principle of operation	Dr. G. Themozhi	<a href="https://youtu.be/MDzQq4jbr1M">https://youtu.be/MDzQq4jbr1M</a>
9	Controllers used in Power systems and power Electronics	Ms. G. Jegadeeswari	<a href="https://youtu.be/XYy7zDycTj8">https://youtu.be/XYy7zDycTj8</a>
10	PID controllers and tuning techniques	Ms. G. Jegadeeswari	<a href="https://youtu.be/bzVOIsrhVGs">https://youtu.be/bzVOIsrhVGs</a>
11	Hysteresis current controllers	Ms. G. Jegadeeswari	<a href="https://youtu.be/rBQi-zM3jMY">https://youtu.be/rBQi-zM3jMY</a>
12	SCADA applications	Mrs. R. Elavarasi	<a href="https://youtu.be/U0nH9KcQBsm">https://youtu.be/U0nH9KcQBsm</a>
13	Lecture on Single phase Transformer	Mrs. R. K. Padmashini	<a href="https://youtu.be/jDfuWAisTRU">https://youtu.be/jDfuWAisTRU</a>
14	Sensors and Transducers	Dr. T. Baldwin Immanuel	<a href="https://youtu.be/zqax2YIBC9c">https://youtu.be/zqax2YIBC9c</a>
15	Introduction to PMLDLC	Dr. V. Karthikeyan	<a href="https://www.youtube.com/watch?v=qy2NatFXBRQ&amp;t=187s">https://www.youtube.com/watch?v=qy2NatFXBRQ&amp;t=187s</a>
16	EMF and Torque equation of BLDC	Dr. V. Karthikeyan	<a href="https://www.youtube.com/watch?v=V-59hXOj8Xc&amp;t=24s">https://www.youtube.com/watch?v=V-59hXOj8Xc&amp;t=24s</a>
17	Digital Electronics	Dr. T. Sasilatha	<a href="https://youtu.be/xCcILGBKuFs">https://youtu.be/xCcILGBKuFs</a>

**Video Lectures given by the faculty**

S. No	Name of the Faculty	Name of the Module	Platform on which module is developed
1	Dr. T. Sasilatha	Analog Communication	<a href="https://www.youtube.com/watch?v=Rn5JKBdWgCc">https://www.youtube.com/watch?v=Rn5JKBdWgCc</a>
2		Design Of Combinational Circuits	<a href="https://www.youtube.com/watch?v=HH2aKOofCaw">https://www.youtube.com/watch?v=HH2aKOofCaw</a>
3	Dr. V. Karthikeyan	Closed loop control of Switched Reluctance Motor	<a href="https://www.youtube.com/watch?v=4gC4RjYWbfk">https://www.youtube.com/watch?v=4gC4RjYWbfk</a>
4		Inverters	<a href="https://www.youtube.com/watch?v=tP_QcCHhGBg">https://www.youtube.com/watch?v=tP_QcCHhGBg</a>
5		Introduction to Power Electronics	<a href="https://www.youtube.com/watch?v=hEsXGBvCXHw">https://www.youtube.com/watch?v=hEsXGBvCXHw</a>
6	Dr. G. Themozhi	Multiple Access Techniques	<a href="https://www.youtube.com/watch?v=5aFyjeIevSY">https://www.youtube.com/watch?v=5aFyjeIevSY</a>
7	Mrs. R. Elavarasi	Transformer	<a href="https://www.youtube.com/watch?v=YuLDDSg8NLA">https://www.youtube.com/watch?v=YuLDDSg8NLA</a>
8		Power Electronics, High Voltage and Electric Propulsion	<a href="https://www.youtube.com/watch?v=ovbMn-hXjIQ">https://www.youtube.com/watch?v=ovbMn-hXjIQ</a>
9		Power Generation Systems for Onboard Ship	<a href="https://www.youtube.com/watch?v=I5_vMfLnZSs">https://www.youtube.com/watch?v=I5_vMfLnZSs</a>
10	Mr. P. Veerakumar	Motor Starters and Speed Control of Induction Motor.	<a href="https://www.youtube.com/watch?v=I-275rV8jpo">https://www.youtube.com/watch?v=I-275rV8jpo</a>
11		Programmable Logic Controllers By Mr. P. Veerakumar	<a href="https://www.youtube.com/watch?v=RmixjBFcmxE">https://www.youtube.com/watch?v=RmixjBFcmxE</a>
12		Nodal Analysis	<a href="https://www.youtube.com/watch?v=cwSgYge46iM">https://www.youtube.com/watch?v=cwSgYge46iM</a>
13	Mrs. G. Jegadeeswari	Fundamentals of Electric Drives	<a href="https://www.youtube.com/watch?v=OKE11w3ENqw">https://www.youtube.com/watch?v=OKE11w3ENqw</a>
14		Electrical Machines	<a href="https://www.youtube.com/watch?v=kZRNBPvpFnU">https://www.youtube.com/watch?v=kZRNBPvpFnU</a>
15		Special Electrical Machines	<a href="https://www.youtube.com/watch?v=KzasSMh6C-w">https://www.youtube.com/watch?v=KzasSMh6C-w</a>
16	Dr. C. Gnanavel	Stepper Motor	<a href="https://www.youtube.com/watch?v=b-X4i1wxYwI">https://www.youtube.com/watch?v=b-X4i1wxYwI</a>
17	Dr. Baldwin Immanuel	Brushless Alternator	<a href="https://www.youtube.com/watch?v=6dl7E0UsNiY">https://www.youtube.com/watch?v=6dl7E0UsNiY</a>
18		Measurement of Insulation Resistance	<a href="https://www.youtube.com/watch?v=bfTAGmIVPuQ">https://www.youtube.com/watch?v=bfTAGmIVPuQ</a>
19		Types of Electric Circuit	<a href="https://www.youtube.com/watch?v=H45K-bSFMjA">https://www.youtube.com/watch?v=H45K-bSFMjA</a>
20	Ms. R K Padmashini	Maxwell's Equation and Poynting Theorem	<a href="https://www.youtube.com/watch?v=3f20YVc1Tmo">https://www.youtube.com/watch?v=3f20YVc1Tmo</a>
21		Root Locus Techniques	<a href="https://www.youtube.com/watch?v=7T8iMg4ItC0">https://www.youtube.com/watch?v=7T8iMg4ItC0</a>
22	Dr. M. Deva Brindha	High Voltage on Merchant Ships	<a href="https://www.youtube.com/watch?v=YVNQJy9asEM">https://www.youtube.com/watch?v=YVNQJy9asEM</a>
23	Mr.K.Manikandan	Mesh Analysis Method	<a href="https://www.youtube.com/watch?v=TcbtlwzBeV0">https://www.youtube.com/watch?v=TcbtlwzBeV0</a>

**Model /Demo Created by the faculty**

<b>S. No</b>	<b>Name of the Faculty</b>	<b>Name of the Module</b>	<b>Platform on which module is developed</b>
1	Mrs. G. Jegadeeswari	Making of DC Motor-Model & Demo	<a href="https://www.youtube.com/watch?v=5wvUBzfNugE">https://www.youtube.com/watch?v=5wvUBzfNugE</a>
2	Dr. S. Priya	First order system	<a href="https://www.youtube.com/watch?v=fgiGTqp1vAs">https://www.youtube.com/watch?v=fgiGTqp1vAs</a>