

A brief report on training module Electric Drives Lab 6EE4-22 (During 16th December to 31st December 2020).

Day -1 (16/12/2020)/EDTC Lab /6EE4-22

- Introduction to the training module by Mr.Akash Deo. He briefed about the purpose of this module and its usefulness.
- Distribution of files and handbooks to the attendees.
- Introduction to the schedule of the training module and explanation of **Experiment no 1. (*Study and test the firing circuit of three phase half controlled bridge converter.*)**.
- Experiment No. 1 is performed by all the attendees in the presence of Mr. Kulwant and other Instructors.
- Explanation of **Experiment no 2. (*Power quality analysis of 3 phase half controlled bridge converter with R and RL loads.*)**.
- Experiment No. 2 is performed by all the attendees in the presence of Mr. Kulwant and other Instructors.
- Calculations done as per the lab manuals and checked by instructors.

Day -2 (17/12/2020)/

- **Experiment No. 3 (*Power Quality analysis of 3-phase full controlled bridge converter feeding R and RL load.*)**, performed by all the attendees in the presence of Mr. Kulwant and other Instructors.

Day -3 (18/12/2020)/ EDTC Lab /6EE4-22

Explanation of **Experiment no 4. (*Study and obtain waveforms of 3-phase full controlled bridge converter with R and RL loads.*)**.

- Experiment No. 4, performed by all the attendees in the presence of Mr. Kulwant and other Instructors.
- Calculations done as per the lab manuals and checked by instructors.

Day -4 (19/12/2020)/ EDTC Lab /6EE4-22

- Explanation of **Experiment no 5. (*Experimental analysis of 3-phase AC voltage regulator with delta connected, star connected (with floating load), R& RL load.*)**.
- Experiment No. 5, performed by all the attendees in the presence of Mr. Kulwant and other Instructors.
- Calculations done as per the lab manuals and checked by instructors.

Day -5 (21/12/2020)/ EDTC Lab /6EE4-22

- Explanation of *Experiment no 6 (Control speed of dc motor using 3-phase half controlled bridge converter. Plot armature voltage versus speed characteristic.)*.
- Experiment No.6, performed by all the attendees in the presence of Mr. Kulwant and other Instructors.
- Calculations done as per the lab manuals and checked by instructors.

Day -6 (22/12/2020)/ EDTC Lab /6EE4-22

Explanation of *Experiment no 7. (Control speed of dc motor using 3-phase full controlled bridge converter. Plot armature voltage versus speed characteristic.)*.

- Experiment No. 7, performed by all the attendees in the presence of Mr. Kulwant and other Instructors.
- Calculations done as per the lab manuals and checked by instructors.

Day -7 (23/12/2020)/ EDTC Lab /6EE4-22

- Explanation of *Experiment no 8. (Control speed of a 3-phase induction motor in variable stator voltage mode using 3-phase AC voltage regulator.)*.
- Experiment No.8, performed by all the attendees in the presence of Mr. Kulwant and other Instructors.
- Calculations done as per the lab manuals and checked by instructors.

Day -8 (24/12/2020)/ EDTC Lab /6EE4-22

Explanation of *Experiment No. 9. (Control speed of a 3-phase BLDC motor).*

- Performed by all the attendees in the presence of Mr. Kulwant and other Instructors.
- Calculations done as per the lab manuals and checked by instructors.

Day -9 (25/12/2020)/ EDTC Lab /6EE4-22

Explanation of *Experiment no 10. (Control speed of a 3-phase PMSM motor using frequency and voltage control)*

- Performed by all the attendees in the presence of Mr. Kulwant and other Instructors.
- Calculations done as per the lab manuals and checked by instructors.

Day -10 (26/12/2020)/ EDTC Lab /6EE4-22

Explanation of *Experiment no 11. (Control speed of universal motor using AC voltage regulator).*

- Performed by all the attendees in the presence of Mr. Kulwant and other Instructors.
- Calculations done as per the lab manuals and checked by instructors.

Day -11 (28/12/2020)/ EDTC Lab /6EE4-22

Explanation of *Experiment no 12. (Study 3-phase dual converter).*

- Performed by all the attendees in the presence of Mr. Kulwant and other Instructors.
- Calculations done as per the lab manuals and checked by instructors.

Day -12 (29/12/2020)/ EDTC Lab /6EE4-22

Explanation of *Experiment no 13. (Study speed control of dc motor using 3-phase dual converter).*

- Performed by all the attendees in the presence of Mr. Kulwant and other Instructors.
- Calculations done as per the lab manuals and checked by instructors.

Day -13 (30/12/2020)/ EDTC Lab /6EE4-22

Explanation of *Experiment no 14. (Study three-phase cyclo-converter and speed control of synchronous motor using cyclo-converter).*

- Performed by all the attendees in the presence of Mr. Kulwant and other Instructors.
- Calculations done as per the lab manuals and checked by instructors.

Day -14 (31/12/2020)/ EDTC Lab /6EE4-22

Explanation of *Experiment no 15. (Control of 3-Phase Induction Motor in variable frequency V/f constant mode using 3-phase inverter).*

- Performed by all the attendees in the presence of Mr. Kulwant and other Instructors.
- Calculations done as per the lab manuals and checked by instructors.

Some Images showing the training programme:





