A brief report on training module Electric Drives Lab 6EE4-22 (During 16 th 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 programe:









Participant List:

| Name | f | | 17/12 | | 18/12 | | 19/12 | | 21/12 | | 22/12 | | 23/12 | | 24/12 | | 25/12 | | 26/ 12 | 27/ 12 | 28/ 12 | 29/ 12 | 30/ 12 | 31/ 12 |
|-------------------|-----|---------|-------|---------|-------|---------|---------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-------|---------|-----------|-----------|-----------|-----------|-----------|-----------|
| of | | | | | | | | | | | | | | | | | | | | | | | | |
| Trainee | (1 | (3:1 | (1 | (3:1 | (1 | (3:1 | (1 | (3:1 | (1 | (3:1 | (1 | (3:1 | (1 | (3:1 | (1 | (3:1 | (1 | (3:1 | (1- | (3:1 | (3:1 | (3:1 | (3:1 | (3:1 |
| | - | 5 to | - | 5 to | - | 5 to | - | 5 to | - | 5 to | - | 5 to | - | 5 to | - | 5 to | - | 5 to | 3) | 5 to |
| | 3) | 5:3 | 3) | 5:3 | 3) | 5:3 | 3) | 5:3 | 3) | 5:3 | 3) | 5:3 | 3) | 5:3 | 3) | 5:3 | 3) | 5:3 | pm | 5:30 | 5:30 | 5:30 | 5:30 | 5:30 |
| | р | 0 | р | 0 | р | 0 | р | 0 | р | 0 | р | 0 | р | 0 | р | 0 | р | 0 | | pm) | pm) | pm) | pm) | pm) |
| | m | pm) | m | pm) | m | pm) | m | pm) | m | pm) | m | pm) | m | pm) | m | pm) | m | pm) | | | | | | |
| Mr. | Ρ | P | Ρ | P | Ρ | P | Ρ | P | Р | P | Ρ | P | Ρ | P | Ρ | P | Ρ | P | Р | Р | P | Р | Р | Ρ |
| Mahes | | | | | | | | | | | | | | | | | | | | | | | | |
| hKr. | • | | | | | | | | | | | | | | | | | | | | | | | |
| Rathodi | | | | | | | | | | | | | | | | | | | | | | | | |
| ya | | | | | | | | | | | | | | | | | | | | | | | | |
| Mrs. | Ρ | P | P | P | P | P | P | Ρ | P | P | Ρ | P | Ρ | P | P | P | P | P | Ρ | P | P | P | P | P |
| Reshm | | | | | | | | | | | | | | | | | | | | | | | | |
| a | | | | | | | | | | | | | | | | | | | | | | | | |
| Sharma | 6 3 | | 6 | 2 | 5 | 8 | 98 - 39 | 8 | 1 | 5 | | | c 3 | | 6 | 2 | 5 | 8 | 3. | 4 3 | | | 35 1 | 4 |
| Mr. | Ρ | P | P | Ρ | P | Ρ | P | Ρ | P | Ρ | A | A | P | Ρ | P | Ρ | P | P | Ρ | P | P | Ρ | P | Ρ |
| Prem | | | | | | | | | | | | | | | | | | | | | | | | |
| Prakas | | | | | | | | | | | | | | | | | | | | | | | | |
| þ | | | | | | | | | | | | | | | | | | | | | | | | |
| Sharma | | | | 10.11 | | | | | 111 | | | | | | | 1 | | | | 100 | | | 1996 | |
| Mr. | Ρ | Ρ | P | Ρ | P | Ρ | P | Ρ | P | P | Ρ | P | P | Ρ | P | P | P | Р | Ρ | P | P | Ρ | Ρ | Ρ |
| Bansi | | | | 117. | | | | | | | | | | | | | | | | | | - 11 | 1.11 | |
| Lal | | ~ | | | | | | | _ | | | | | ~ | | | - | | | | | | | |
| Mr. | Ρ | P | P | P | P | P | Ρ | Ρ | P | P | Ρ | P | Ρ | Ρ | P | P | P | P | P | P | Р | P | P | P |
| Kulwan t Singh | | | | | | | | | | | | | | | | | | | | | | | | |
| Mrs. | Ρ | Ρ | Ρ | Ρ | Ρ | Ρ | Ρ | Ρ | Ρ | Ρ | Ρ | Ρ | Ρ | Ρ | Ρ | Ρ | Ρ | Ρ | Ρ | Ρ | Ρ | Ρ | Ρ | Ρ |
| Anita | 200 | | | | | | | | | | | | 100 | | | | | | | | | | | |
| Bagaria | | | | | | | | | | | | | | | | | | | | | | | | |

Attendance sheet Training Module of Electrical Drives Laboratory 16.12.20 to 31.12.20