

# Gujarat Technological University

## Graduate School of Engineering and Technology

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A Report on Webinar

### Know Your Equipment: Transformer

(Date: 21<sup>st</sup> November 2020, Time: 3.30pm to 4.30pm)

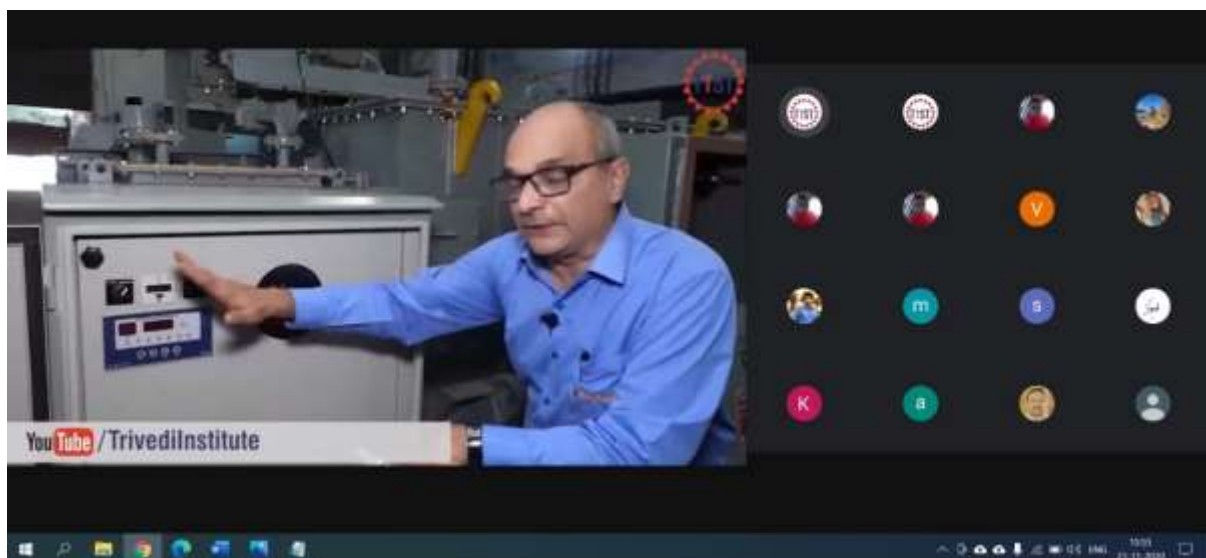
The webinar was organized by GTU-Graduate School of Engineering and Technology under its **Skill Development Program Series**.

**Er. Hasit Trivedi** a chief programme officer of **Trivedi Institute of Skill Development and Training** and also Co-founder of **Trivedi Groups of Companies** conducted this webinar.

The session was started with the introduction of the main parts of Transformer like Core Winding – HV and LV winding, Tank and frame, Oil and insulator paper, Radiators & Fans and Accessories.

Further the session was taken ahead on topics like: Codes and standards, Technical specification, Data Sheet, GTP (Guaranteed Technical Parameters), SOP (Safe Operating Procedure) , ITP (Installation Test Procedure), O&M manual and check list format ; Various application of Transformer like Power Transformer, Distribution transformer, Induction furnace transformer, Rectifier transformer, Power generating transformer, Rectifier transformer etc. and rating of Transformer:

In addition to this, Virtual Industrial visit or can be called in-depth manufacturing process of Transformer was depicted at G-Volt Transformer Pvt Ltd in coordination with Trivedi Institute of Skill Development and Training was conducted.



The Virtual industrial visit covered topics as follows:

- Rating & Diagram Plate (Name Plate) like : Company Name, KVA rating, Primary & Secondary Voltage, Primary & Secondary Current, Vector Group, Tapping, Impedance, efficiency, Losses, Type of cooling, Winding Temperature, Oil Temperature, manufacturing year, Weight of Transformer, Order Number and Serial Number.
- Transformer Tank: Core Coil Assembly and oil assembled in it with connections.
- Cooling :Radiator cooling (Fixed type and Valve type)
- OLTC (On Load Tap changer) panel : inbuilt RTCC remote tap changer cubicle panel, AVR (Auto Voltage Regulator), counter; Operation of OLTC (On Load Tap changer) OSR
- Conservator Tank: MOG (Magnetic Oil Gauge)\
- Operation of Breather : Silica Gel or Oil Cap
- Protection of Transformer: Buchholz Relay, Winding Temperature Indicator, Oil temperature Indicator , PRV, PRD, OSR.
- Marshalling Box connection.
- Operation and Function of Buchholz Relay and its connection to Marshalling Box
- Function of Gasket and Inspection Chamber
- Connection of LV Box with Bus Bar and CT connection and Connection of HV side and its Bushing connection
- Test bench of Transformer

The webinar was ended with concluding remarks and hoping for continuing this series of sessions.

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