

K.K.Wagh Institute of Engineering Education and Research

Hirabai Haridas Vidyanagari, Mumbai Agra Road Amrutdham, Panchavati, Nashik, Maharashtra 422003

Webinar Report

TOPIC: Future in Electronics as an Entrepreneur

**RESOURCE PERSON: Mr.Sanjay Atmaram Chaudhari, Director,
Electronics Study Centre**

DATE: 16/09/2021

ATTENDEES:

- Prof. Dr. D. M. Chandwadkar (HoD)
- Staff of E&TC and Electronics department
- Students of T.E E&TC
- Students of TE ELTX
- Students of SE E&TC
- Students of SE ELTX
- The members of IETE , Nashik

DURATION: 2 hours

NUMBER OF ATTENDEES: 160+

POS MAPPED: PO1, PO2, PO12

OUTCOMES:

1. At the end of this webinar, students were made aware of how to identify various electronic components just by observation easily and how they can be tested and also identified using Digital Multimeter and other testing instruments.
2. Also this webinar was extremely helpful for students who were mainly interested in core electronics as their career option and also helped in skill development of students in the field of electronics.

SUMMARY:

Department of Electronics and Telecommunication Engineering in collaboration with IETE, Nashik Sub-Center organized a session on “Future in Electronics as an Entrepreneur” on 16th September 2021. The webinar was meant for the skill development in field of core electronics for students of Second year and Third year E&TC and ELTX.

The speaker and chief guest of this webinar was Sanjay Chaudhari sir, Director of Electronics Study Centre who also had a job profile as a lecturer for almost 20 years in the Bhusawal P.O. Nahata College. The webinar was conducted using the Zoom video conferencing online platform. A brief introduction of Sanjay Chaudhari was given and he was welcomed by Rupali Chothe mam. Sanjay Chaudhari sir primarily discussed about how electronics can be made simple to understand and fun to work in by comparing general life examples and various aspects of electronics engineering. He in a simple but efficient manner introduced all the students with various electronic components such as diodes, resistors, transistors and explained about how they have to be identified accurately and check for any faults within them.

Few minutes into the session it felt as if it was more of an actual industrial visit instead of a virtual session. With his amazing way of teaching and hilarious means of comparing various Bollywood films, actors, cartoons and daily life examples he made the session quite lively also at the same time making sure all the basics of core electronics be grasped by the students easily without any confusion.

He interacted with students and asked them various twisted questions to check the practical knowledge of the students in electronics. He explained the colour codes of resistors, different types of transistors, capacitors, diodes and their testing on DMM.

He also represented how could different mechanical parts be identified by electronic testing. He at the latter of the webinar displayed the innovative circuits which he had made using his expertise in core electronics and also influenced and encouraged the students to try such kind of innovative ideas and make them true in the form of projects and not just limiting them to imaginary manifestations.

Finally the webinar was concluded with sir encouraging students for getting trained and getting skill in the sector of core electronics and promised to guide anyone interested in establishing startups related to the same.

This webinar was conducted under the guidance of HOD Prof. Dr D.M.Chandwadkar sir and Academic co-ordinator Dr.S.P.Ugale mam. It was organized by Prof. R.V.Chothe mam. All staff members of E&TC and ELTX department were present. All the students of Second year and Third year E&TC and ELTX found the webinar quite knowledgeable and enlightening and would be looking forward for many such sessions in the near future.

SCREENSHOTS AND SOME GLIMPSES OF WEBINAR:

Zoom Meeting

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Participants (146)

Find a participant

9_SE_A_ENTC_D...
E&TC_TE_31_Shasha...
9_SE_A_ENTC_Dhansh...
ESC Nasik 93709 40465
03 TE e&TC - Mayur C...
11_TE_E&TC_Dange Ka...
B_07_Vrushali Awar...

Passive (Electric Components)

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Recording

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How to use DMM

Insert **Black** probe in common socket.
Insert **Red** probe in Volt/Ω/mA socket.
Rotate function selector switch slowly & smoothly.
Select the function for Voltage/ Current/ Resistance/ Buzzer/ Diode (semi conductor) with proper range as per requirement.
Hot Test- Measurement of Voltage / Current.
Select correct range for hot test. (Voltage / Current) otherwise DMM may damage.

Precaution- Do not measure **Voltage**, after selecting Resistance/ Current/ Buzzer range.
Do not measure **Current** after selecting Resistance / Buzzer range.

Cold Test- Measurement of Resistance (Ω)/ Buzzer Range- Continuity Test
1 → ∞ (Open) 0/ (Close to 0) → Short Buzzer sounds (0 - 50Ω) → Continuity/ Short

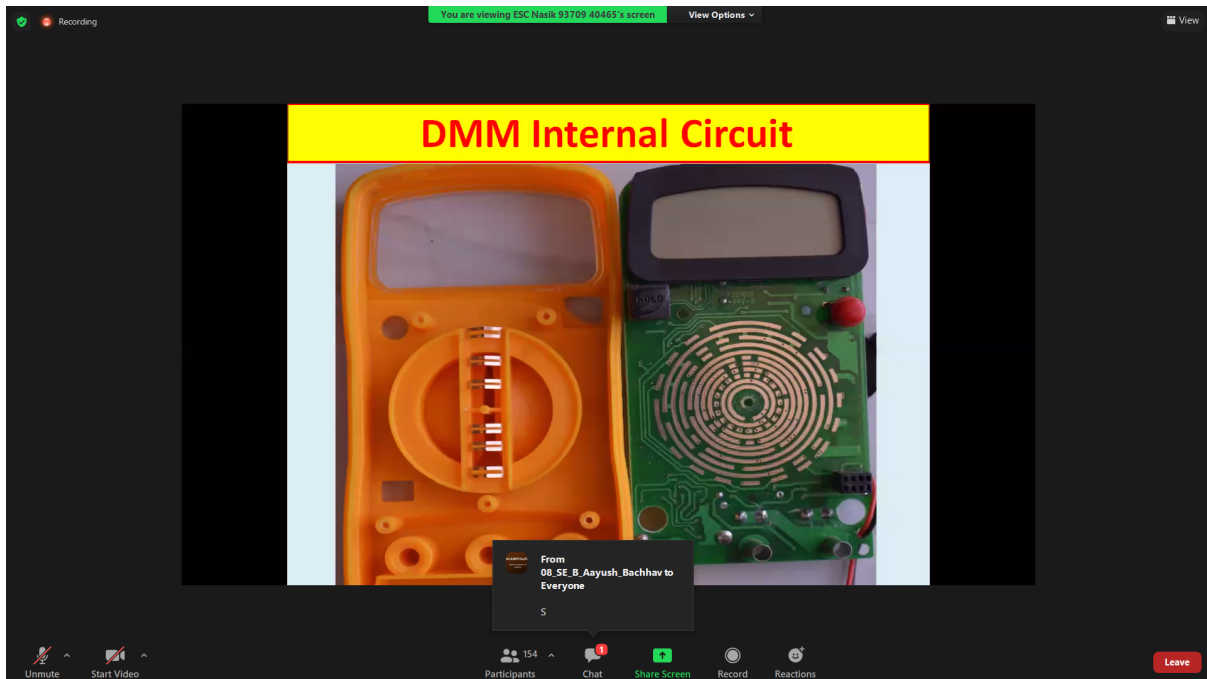
Testing Electric (Passive) Components:
Switches, all types of Resistors, Inductors, Capacitors, CT, Transformer Relay, Solenoids
Electric Component/ Value: Select any of the Ω range to measure/ check it, as per value of component (known/ unknown) quantity as per requirement. (For Capacitor 2MΩ)
Known quantity- Select proper range. (smallest but **just higher** than measuring quantity).
Unknown quantity- Select the highest range, go towards lower till you get precise reading.
DMM Test- Resistance- Connect (short) both the probes together, if reading is 0 and when disconnected 1 (∞) then DMM is ready for resistance measurement and component testing. If Buzzer sounds, then it is ready for continuity test (for Fuse/ Switches/ Tracks/ Relay Contacts)

Resistance: Hold a probe with a lead in your hand, then connect another probe to the other lead **without touching hand to the other lead**.

Testing Electronic (Active) Components:
Diodes, LED, Display, Photo Diode, Transistor, SCR, Diac, Triac, MOSFET, IGBT.
Range: Semi conductor/ Diode → (2k), as forward resist is 50 Ω to 1.5k
Reverse bias → 1 → ∞ **Forward bias** → 50Ω to 1.5kΩ
If DMM shows continuously 1, measuring quantity is higher than selected range. Then increase the range to **highest**, even then if it shows 1 (∞), it means **Open circuit**.

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Diode Testing

Select range 2k, To verify DMM working, connect both probes together, it **must show 0**

Testing- Connect given two terminal device across DMM probes in any manner it may show **Reverse/Forward** bias.

In one direction **Reverse bias** **1** (∞)

By replacing DMM probe polarity it shows **Forward bias** (50Ω TO $1.5k\Omega$)

It's a confirm Diode

While DMM shows forward bias
Red probe connected terminal is **Anode**
Black probe connected terminal is **Cathode**

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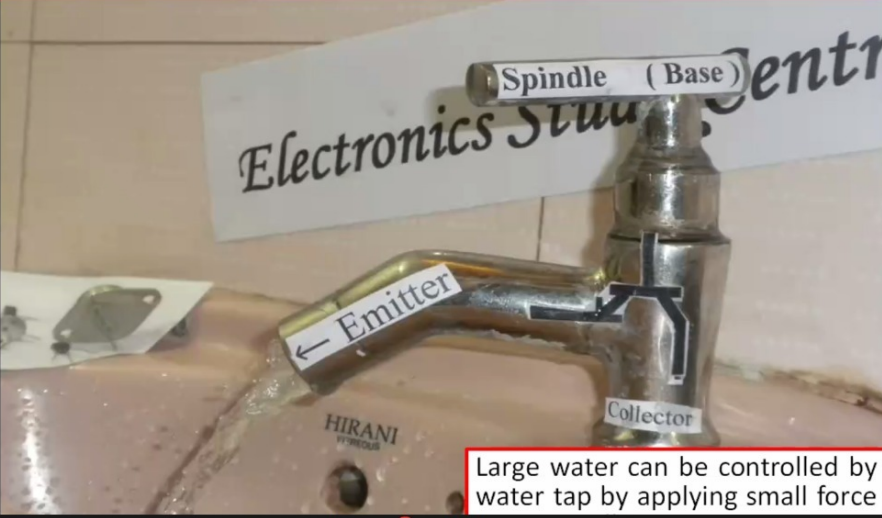
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Real Time Example

Water flow is large it can not be controlled by hand.



Spindle (Base)

Electronics Studio

Emitter

Collector

Large water can be controlled by water tap by applying small force

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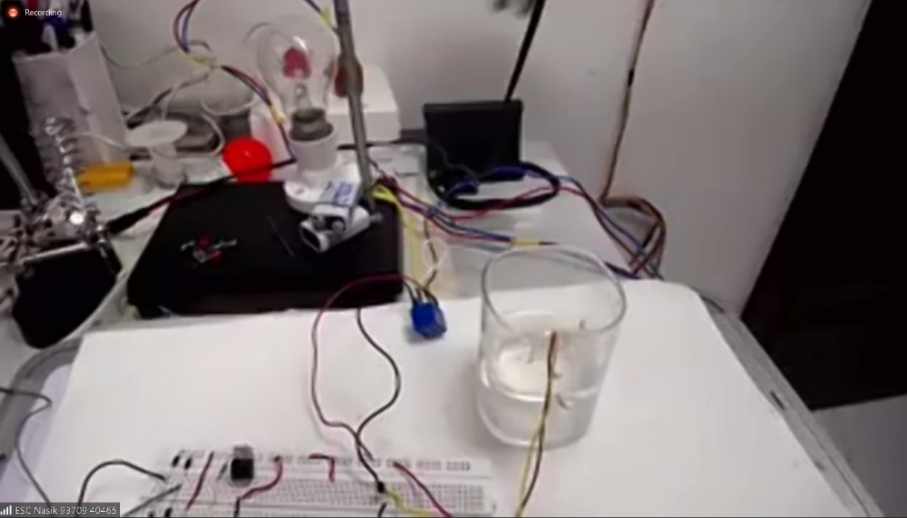
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31_TE_E&TC_Shashw... ESC Nasik 93709 40465 36_A_SE(E&TC)_Nika... Rupali Chothe 78_TE_E&TC_Akshada... A_SE_50_Srushji Shelar



Participants (129)

Find a participant

- 31_TE_E&TC_Shashwat Mu... (Mo) [Mute]
- Rupali Chothe (Host) [Mute]
- ESC Nasik 93709 40465 (Co-host) [Mute]
- Dr. Sunila Patil, Ugale (Co-host) [Mute]
- ESC Nasik 93709 40465 (Co-host) [Mute]
- (G) (32-B) Gore Abhishek [Mute]
- 01_SE_B_Vikas Ahire [Mute]
- 02_TE_E&TC_Priyanka bhoye [Mute]
- 03 TE e&TC - Mayur Chavan [Mute]
- 04_SE_B_Pavan Ambilwade [Mute]
- 04_SE_B_Prasad Amrutkar [Mute]
- 05_A_SE_Sayyam Bhagwatkar [Mute]
- 05_SE_B_Ajinkya Avhad [Mute]
- 05_TE_ELIX_Priyanshu Bhagat [Mute]
- 06_SE_B_Vaishnavi Avhad [Mute]
- 07_TE_E&TC_Akshay Ahire [Mute]

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