



**Rajiv Gandhi College of Engineering, Research &
Technology, Chandrapur**

Electrical Engineering Department

REPORT

On

One Day Webinar

"Recent Trends in Meeting Power Quality Challenges"

By

Mr. Upendra Rao

Vice President (Retired), ABB, India Ltd.

ORGANISED By

**Electrical Engineering Department & RCERT Online Study Section (ROSS)
R.C.E.R.T., Chandrapur.**

Date: May 27, 2020.

BRIEF REPORT

Recent Trends in Meeting Power Quality Challenges

Department of Electrical Engineering has organized One day webinar on "Recent Trends in Meeting Power Quality Challenges" in association with RCERT Online Study Section (ROSS) on 27th May, 2020 from 10:30 am to 12:30 pm. Mr. Upendra Rao Retired as Vice President & Business Head for Power Protection in 2019, was invited as a guest speaker. He has 36 years of experience in ABB India Ltd and BHEL-Industrial Systems Group in the Engineering & Manufacturing sectors.

He has a vast experience in Project Commissioning, Engineering, Order Management, Factory Operations, Large Turnkey Project Management, Business Operations and finally as Business Head. He is an effective communicator with exceptional skills in developing teams, leading taskforces and managing industrial relations.

As there is a lockdown organizing committee has taken the efforts for its publicity only through online means such as what's app groups, telegram, personnel mails etc.

The webinar started with the welcoming of participants and guests by the organizer. Later on, Dr. Z. J. Khan (Principal, RCERT Chandrapur) has delivered the inaugural speech. In his speech he has advised the participants be aware of the recent trends in technological development. He has also focused on importance of application-oriented studies in engineering and role of such technology in the Indian education system.

The purpose of the webinar was to bring on a single forum various researchers across the India to promote the discussion on Recent Trends in Power Quality. More than 350 participants have been registered for the Webinar across the country i.e. from Jammu & Kashmir, Madhya Pradesh, Uttar Pradesh, Chhattisgarh, Rajasthan, Tamil nadu, Kerla, home state Maharashtra etc.

The resource person shared a knowledgeable presentation with participants mainly on following points:

- Power Quality (PQ) problems and affected segments.
- Systems to meet PQ challenges & their features.
- Voltage conditioning with sags & swells.
- Voltage conditioning with deeper sags & swells and brief outages.
- Voltage conditioning at medium voltage levels.
- Voltage and frequency conditioning – Double conversion.
- Reactive Power conditioning.

He talked on various systems to meet PQ challenges with standard offering – Modular Design.

Some of the benefits of Redundant Design are:-

- System runs with reduced capacity instead of shutting down.
- Low mean time to repair (MTTR) and rationalized spares.
- Minimum spares required.
- High commonality of parts.
- Low product knowledge required.
- Fault damage is contained in the local module.

He also cover the topic such as voltage conditioning while discussing this he explains how to mitigates deeper sag (under voltages) and swell (over voltages) along with short power outages.

He also through a light on Voltage and frequency conditioning, reactive power conditioning etc

At last he suggested that PCS100 converter technology can be used to design many power system products. This technology can be used to develop protection products in Active voltage conditioning, industrial UPS, reactive power conditioning and static frequency conversion etc

Prof. Neelima V. Bhangе conducted the program and delivered the vote of thanks. Prof. Amit N. Akkewar and Prof Subhash Y. Kamadi look after the technical issues and also took the efforts in designing and distributing E-certificates. Dr. R. K. Dhattrak (Head of the Electrical Engineering Department) Dr. Z. J. Khan, Principal, RCERT encouraged and guided the team to make the event successful.

The link of the webinar was: <https://forms.gle/rEGe8bVquz2wHvHAA>

Staff Co-coordinators

Prof. A. N. Akkewar

Prof. N. V. Bhangе

Prof. S. Y. Kamdi

Convener & Head

Dr. R. K. Dhattrak



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**RAJIV GANDHI COLLEGE OF ENGINEERING,
RESEARCH AND TECHNOLOGY
CHANDRAPUR**

RCERT ONLINE STUDY SECTION (ROSS)
and Department of Electrical Engineering

ORGANIZES
WEBINAR ON
**RECENT TRENDS IN
MEETING POWER
QUALITY CHALLENGES**



RESOURCE PERSON
MR. UPENDRA RAO
VICE PRESIDENT (Retd)
ABB, INDIA LTD

DATE: 27 MAY 2020
TIME: 10:30 AM - 12:30 PM
ALL THE PARTICIPANTS WILL EARN E-CERTIFICATES

LAST DATE FOR REGISTRATION
26 MAY 2020 before 05:00 PM

ORGANIZING COMMITTEE

DR. Z. J. KHAN PRINCIPAL	PROF. AMIT AKKEWAR
DR. R. K. DHATRAK HOD. ELECTRICAL ENGG	PROF. SUBHASH KAMD PROF. NEELIMA BHANGE STAFF CO-ORDINATORS

The Brochure of the Webinar