



**SRI SRINIVASA EDUCATIONAL AND CHARITABLE TRUST  
SAPTHAGIRI COLLEGE OF ENGINEERING**

(Affiliated to Visvesvaraya Technological University, Belgaum, Approved by AICTE, New Delhi)  
14/5, Chikkasandra, Hesaraghatta Main Road, Bengaluru – 560 057.

**Department of Electrical and Electronics Engineering**

**REPORT ON**

**OPEN WEBINAR ON**

**“MiPOWER SIMULATION STUDIES”**

**CONDUCTED ON**

**19/12/2020**



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14/5, Chikkasandra, Hesarahatta Main Road, Bengaluru – 560 057.

## **REPORT:**

An open webinar on “MiPower Simulation Studies” was conducted on 19/12/2020 in association with M/s. Power Research Development Consultants Pvt. Ltd (PRDC).

Dr. R Nagaraja, Founder and Managing Director, PRDC has given consent to be speaker for the webinar. PRDC is a pioneer in developing solutions for various power system network based issues/problems arising in the world. This webinar was conducted for the Final year students of EEE and faculty members from various institutions in Karnataka. The no. of participants was 92.

The webinar was conducted as per the following schedule.

- 1.45 PM to 2.00 PM: Inauguration
- 2.00 PM to 2.45 PM: Load flow studies
- 2.45 PM to 3.00 PM: Short break/interactions
- 3.00 PM to 3.45 PM: Fault studies
- 3.45 PM to 4.00 PM: Short break/interactions
- 4.00 PM to 4.45 PM: Stability studies
- 4.45 PM to 5.00 PM: Interactions
- 5.00 PM to 5.10 PM: Valedictory

Dr. R. Nagaraja, was given detailed view of Load Flow studies using “MiPower” software for a sample power system with various Load Flow solution methods, such as, FDLF, Gauss-Seidel and Newton Raphson. Overview of various fault studies were also presented with sample system for LG, LL, LLG and LLLG. The Stability studies were carried out in this webinar with a background of Swing equation under different fault conditions using Modified Euler’s method and Point-by-Point method.

This webinar satisfies the need of introducing the power system simulation studies using the “MiPower” software for the students in 7<sup>th</sup> sem.

The snapshots for the open webinar are given below.

The screenshot shows a GoToMeeting interface with a grid of 12 participants. The top bar includes the GoToMeeting logo, a 'REC' indicator, and a lock icon. The meeting title is 'Talking: MD Office' and the view is set to 'View Everyone'. The participants' initials are arranged in a grid:

MD	RM	MR	M	IT	AA	RP	EBK	TMK	EM1	VS	
CN	SG	NKI	PS	ST	MC	MS	YS	RB	DR	MVI	NIB
VV	LN	N	RG	IRS	JC	DR	AIN	MR	KD	CR	MRL
IB	DKH	VMO	K	CDR	RM	AK	JR	L	AD	GG	SR
SD	DP	CKR	S	E	VG	RS	RG	RCM	ASP	NSS	PR
CN	KS	MB	YS1	AB	DNS	MK	LRR	SC	YP	SSG	NR

The presentation slide is titled 'Power Evacuation Problem Statement' and contains the following text:

**Power Evacuation Problem Statement**

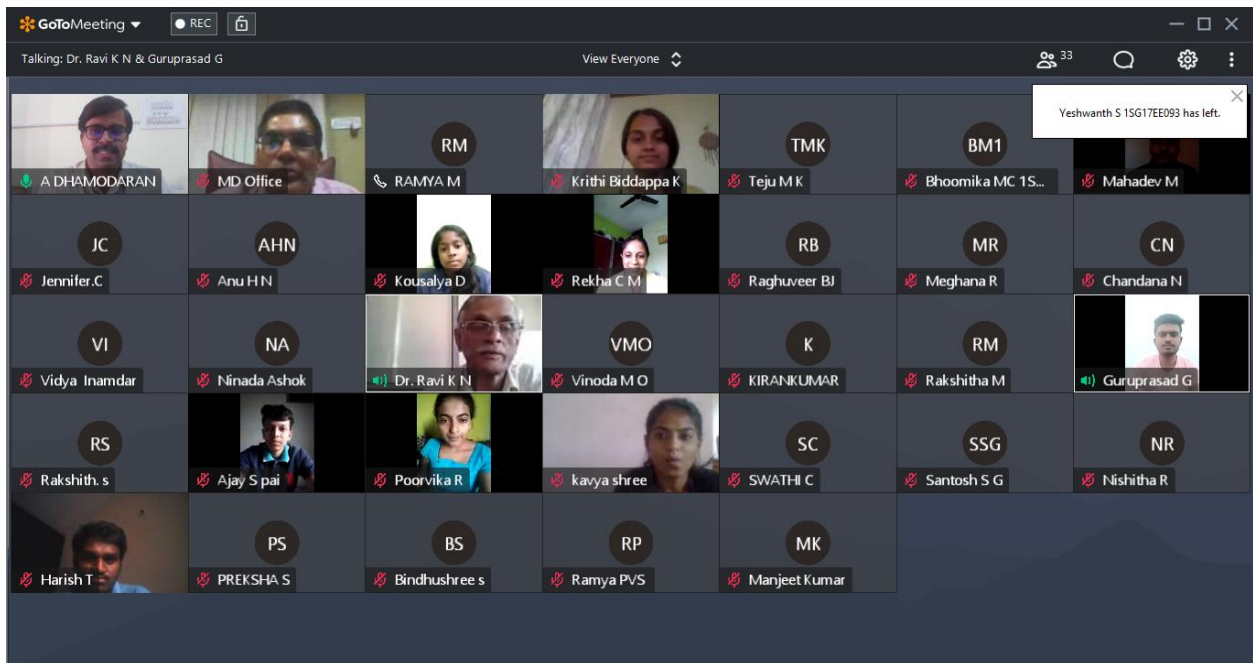
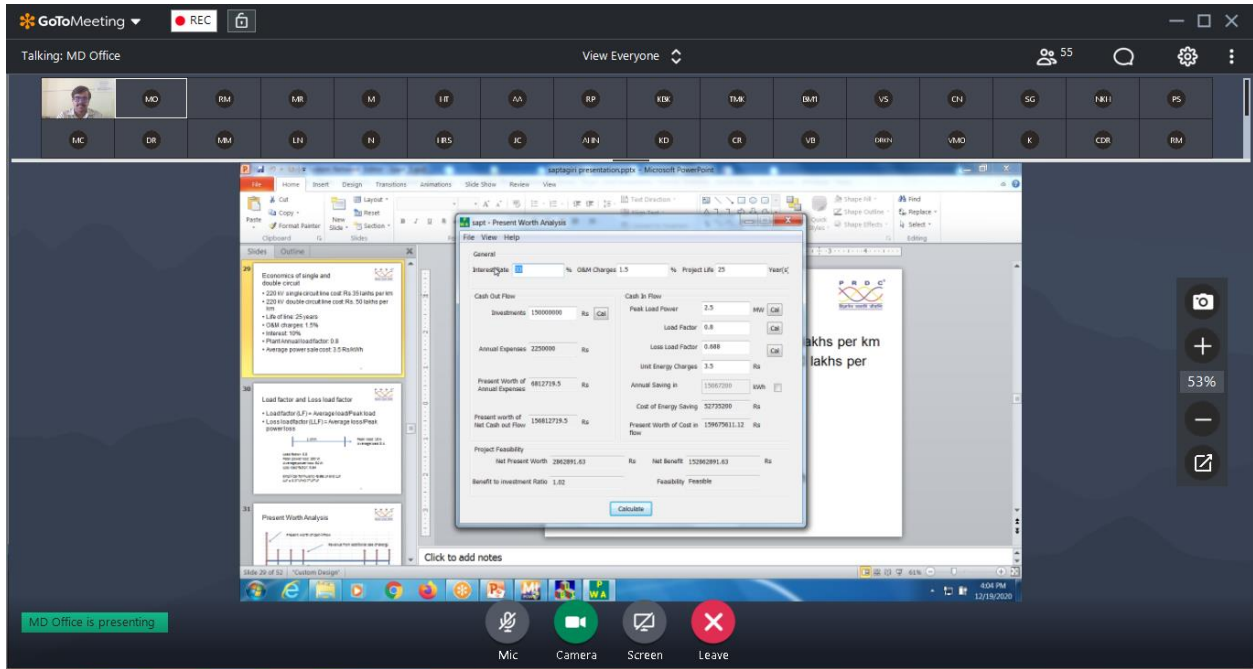
- It is proposed to setup 210 MW, 0.85 pf thermal power plant at about 100 km from existing 220 kV grid substations. Generation voltage is at 11 kV.
- The power plant auxiliary consumption is about 8%.
- Grid fault level: 3 phase – 5000 MVA, SLG – 4000 MVA
- Design the suitable evacuation scheme, select step up transformer sizing and perform the load flow analysis.
- Comment on the voltage and reactive power control options.
- Comment on the economics of single circuit and double circuit lines.

The bottom of the screen shows a control bar with 'MD Office is presenting', and icons for Mic, Camera, Screen, and Leave. A zoom level of 33% is indicated on the right side.

The screenshot shows a GoToMeeting interface with a grid of 12 participants. The top bar includes the GoToMeeting logo, a 'REC' indicator, and a lock icon. The meeting title is 'Talking: MD Office' and the view is set to 'View Everyone'. The participants' initials are arranged in a grid:

MD	RM	MR	M	IT	AA	RP	EBK	TMK	EM1	VS	CN
MC	YS	DR	MVI	NIB	VV	LN	N	IRS	JC	DR	AIN
VB	S	MR	DRH	VMO	K	CDR	RM	AK	JR	L	AD
CKR	S	E	VG	RS	RG	RCM	ASP	NSS	PR	CN	ES

The presentation slide is titled 'Load Data' and shows a screenshot of a software application window. The window title is 'Load Data' and it contains various input fields and controls for configuring load data. The bottom of the screen shows a control bar with 'MD Office is presenting', and icons for Mic, Camera, Screen, and Leave. A zoom level of 43% is indicated on the right side.



## Webinar Coordinators

- 1) Mr. A Dhamodaran
- 2) Mrs. Ramya M
- 3) Mr. Mahavishnu K B P

HoD, Dept. of EEE