

### **Department of Electrical Engineering**

# Academic Year 2022-23 FDP on "Power Quality Problems and due Solutions"

	To train researchers with follow content:
	1. Waveform Distortions and Power Quality Issues due to Grid Connected
Objective	Converters.
	2. Signal Processing Techniques for Power Quality Studies
	3. Photovoltaic System Operation as DSTATCOM for power Quality
	Improvement Employing Active Current Control
	4. Enhancement in the Power Quality using FACTS
	5. FACTS Optimal Placement using GA in MATLAB
	6. Harmonic Elimination in A MPPT Based Solar Powered Cascade
	Multilevel Inverter
	7. Lower Order Harmonic Elimination by using Multi Pulse AC to DC
	Converter using MATLAB
	8. Techniques to Mitigate harmonics due to power electronics circuits
	9. Prospective of Power Quality Improvement studies in Typhoon HIL
	10. Prospective of Power Quality Improvement studies in Typhoon HIL- DVR
	Example
	11. Power Quality Improvements in Charging Stations
	12. Power Quality Measurements using Fluke
	13. Machine-learning methods applied to Power Quality Problems
Organizer	Department of Electrical Engineering
Designation of the control of the co	SVKM's Institute of Technology, Dhule
Participating Class & Division	Faculty from Electrical Engineering of various colleges.
Date	30/01/2023 to 03/02/2023 (One Week)
Time	9:30 AM to 4:00 PM
Venue	Online – Microsoft Teams
Coordinator/s	Mr. Sandeep Ushkewar
	Organizing Team: Mr. Sandeep Ushkewar, Mr. Gaurav Patil, Dr. Namra Joshi,
	Mr. Jagdish More, Ms. Farha Naz, Mr. T. N. Shubham, Mr. Shahid Akhtar, Mr.
Name of Charles	Rahul Thakur, Mr. Jayesh Patil, Mr. Pankaj Bhavsar.
Name of Speaker	<ol> <li>Dr. Shimi S.L, Assistant Professor, NITTTR Chandigarh</li> <li>Pankaj Achlerkar (PhD, IIT, Delhi), System Design Engineer, GE,</li> </ol>
with Designation	Noida
	3. Dr. Nishant Kumar, Assistant Professor, Indian Institute of Technology



#### **Department of Electrical Engineering**

	Jodhp	ur		
	4. Mr. R	ohit Kumar, PhD Stud	lent, IIT Delhi	
	5. Dr Lin	ni Mathew, Professor,	NITTTR Chandiga	rh
	6. Mrs. A	Anjali Bhandakkar, Re	esearch Scholar, NI	TTTR Chandigarh
	7. Dr. Ra	avi Teja, Assistant Pro	ofessor, IIT Ropar	
	8. Shaile	ndra Kumar, NIT, Bh	opal	
		P was conducted in be	_^	
	DAY & DATE	Live Session - 1 9.30 AM to 11. 00 AM	Live Session - 2	Live Session - 3 2.30 PM to 4.00 PM
	Monday 30/01/2023	Course Inaugurati Waveform Distortion Issues due to Grid Co	on & Lecture on s and Power Quality	Signal Processing Techniques for Power Quality Studies
Brief report on activity	Tuesday 31/01/2023	Photovoltaic System Operation as DSTATCOM for power Quality Improvement Employing Active Current Control	Enhancement in the Power Quality using FACTS	FACTS Optimal Placement using GA in MATLAB
	Wednesday 01/02/2023	Harmonic Elimination in A MPPT Based Solar Powered Cascade Multilevel Inverter	Lower Order Harmonic Elimination by using Multi Pulse AC to DC Converter using MATLAB	Techniques to Mitigate harmonics due to powe electronics circuits
	Thursday 02/02/2023	Prospective of Power Quality Improvement studies in Typhoon HIL	Prospective of Power Quality Improvement studies in Typhoon HIL- DVR Example	Power Quality Improvements in Charging Stations
	Friday 03/02/2023	Power Quality Measurements using Fluke	Machine-learning methods applied to Power Quality Problems	STC Valediction
<b>Duration of Program</b>	One Week	(		
Mr. Sandeep Ushkew	vor.	Dr. Vishal Moya	ı —n	Ralunke r. Nilesh Salunke
Coordinator	ai	Department Coordin		rincipal & Patron
Coordinator		Department Coordin	ator I	Incipal & Lation

#### Attached:-

- 1. Details of the Event
- 2. Event Memories/Pictures
- 3. List of Participants
- 4. Sample Certificate



Principal
SYKM's Institute of Technology, Dhule

### 1. Details of the Event

Name of Program: FDP on "Power Quality Problems and due Solutions".

**Objectives:** To train researchers with follow content:

- 1. Waveform Distortions and Power Quality Issues due to Grid Connected Converters.
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**Dates and duration:** 30/01/2023 to 03/02/2023 (One Week)

Event Coordinator: Mr. Sandeep Ushkewar

Convener: Dr. Vishal Moyal.

Patron: Dr. Nilesh Salunke

**Organizing Team:** Mr. Sandeep Ushkewar, Mr. Gaurav Patil, Dr. Namra Joshi, Mr. Jagdish More, Ms. Farha Naz, Mr. T. N. Shubham, Mr. Shahid Akhtar, Mr. Rahul Thakur, Mr. Jayesh Patil.

Participants: Faculty from Electrical Engineering Department (Only from SVKM's IOT, Dhule)

#### Name and details of the speakers:

- 1. Dr. Shimi S.L, Assistant Professor, NITTTR Chandigarh
- 2. Pankaj Achlerkar (PhD, IIT, Delhi), System Design Engineer, GE, Noida
- 3. Dr. Nishant Kumar, Assistant Professor, Indian Institute of Technology Jodhpur
- 4. Mr. Rohit Kumar, PhD Student, IIT Delhi
- 5. Dr Lini Mathew, Professor, NITTTR Chandigarh
- 6. Mrs. Anjali Bhandakkar, Research Scholar, NITTTR Chandigarh
- 7. Dr. Ravi Teja, Assistant Professor, IIT Ropar
- 8. Shailendra Kumar, NIT, Bhopal

### 2. Event Poster

### **COURSE CONTENT**

- WAVEFORM DISTORTIONS AND POWER QUALITY ISSUES DUE TO GRID CONNECTED CONVERTERS - DR. SHIMI S.L, NITTTR, CHANDIGARH
- DIP CHARACTERISTICS AND EQUIPMENT IMPACT- ROGER ALVES DE OLIVEIRA, LTU, SWEDEN
- TECHNIQUES TO MITIGATE HARMONICS DUE TO POWER ELECTRONICS CIRCUITS -DR. RAVI TEJA, IIT, ROPAR
- LOWER ORDER HARMONIC ELIMINATION BY USING MULTI PULSE AC TO DC CONVERTER USING MATLAB - ROHIT KUMAR, IIT, DELHI
- ENHANCEMENT IN THE POWER QUALITY USING FACTS PROF. LINI MATHEW, NITTTR, CHANDIGARH
- FACTS OPTIMAL PLACEMENT USING GA IN MATLAB DR. ANJALI BHANDAKKAR
- REACTIVE POWER MANAGEMENT AND ACTIVE FILTERS- EXPERT TYPHOON HIL
- POWER QUALITY IMPROVEMENTS IN CHARGING STATIONS DR SHAILENDRA KUMAR, NIT, BHOPAL
- MACHINE-LEARNING METHODS APPLIED TO POWER QUALITY PROBLEMS DR. Shimi, Nitter, Chandigarh
- TOOLS SUCH AS MATLAB AND POWER QUALITY ANALYSER FOR POWER QUALITY
   RESEARCH EXPERT FLUKE



### TO KNOW MORE Join US Online

Register via link

https://fdp.nitttrchd.ac.in/backingup/

#### FOR DETAILS . CONTACT

Dr.Vishal Moyal, HOD, EE SVKM's Institute of Technology, Dhule

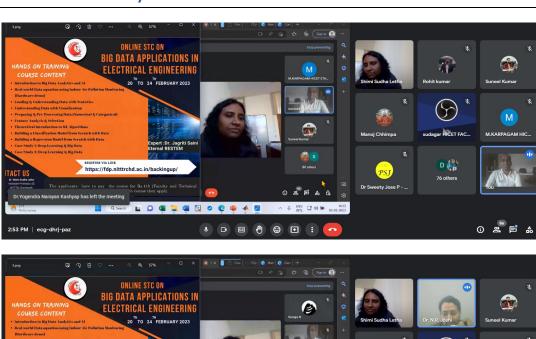
Mobile: 9425685966

E-Mail: Vishal.Moyal@svkm.ac.in Mr. Sandeep Ushkewar, AP, EE

Mobile: 9970045518

E-Mail: Sandeep.Ushkewar@svkm.ac.in

### 3. Event Memories/Pictures







## 3. List of Participants

Name of the Course: Power Quality Problems and Solutions (O. PLAN No. ICT 162)

Dates: 30.01.2023 to 03.02.2023
Venue (Nodal Centre) - SVKMs Institute of Technology.

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30	Vishal Moyal	SVKM's Institute of Technology, Dhule.	3	*	3	3	3	3	3	3	No.	3	3	3	No.	The same	300
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### 4. Sample Certificate

Certificate No: ICT-23135/23

### National Institute of Technical Teachers Training and Research Chandigarh

MINISTRY OF EDUCATION, GOVERNMENT OF INDIA

Certificate

This is to certify that

M. ANKUSH KUMAR

# SVKMS INSTITUTE OF TECHNOLOGY, DHULE MAHARASHTRA

Participated in the AICTE Recognized Faculty Development Programme

on

**Power Quality Problems and Solutions** 

Conducted by

**Electrical Engineering Department** 

from

30/01/2023 to 03/02/2023 (One Week)

at

SVKMs Institute of Technology, Dhule, Maharashtra



Coordinator

BEZ )

Director