K.K. WAGH INSTITUTE OF ENGINEERING
EDUCATION AND RESEARCH
DEPARTMENT OF
ELECTRICAL ENGINEERING

VIDYULATA

NEWSLETTER

A Half Yearly Newsletter Issue/Vol. No. 4
May 2017

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FROM THE DESK OF HOD

Friends,

It's immense pleasure to present this semi-annual newsletter "Vidyulata". Electrical Engineering Department is the dynamic and vibrant department with the blend of young and experienced Faculty.

Department is actively involved in academic as well as research work in current areas of Electrical Engineering and multi-disciplinary streams. The department has well equipped labs with the state-of-the-art software, hardware and machineries.

The faculty members are constantly publishing technical papers in National and International journals and conferences. Also, the department is offering consultancy services to many National/Multinational industrial organizations.

The department is fortunate to have dedicated teachers, devoted students, and committed supporting staff and expert technical staff.

Specially, I congratulate my students for participating in various extra-curricular activities, research work and competitive examinations. My best wishes to all for their bright carrier and successful life.

Dr. B. E. Kushare
Head of Electrical Engineering Dept.
bekushare@kkwagh.edu.in

VISION AND MISSION

Mission of the Institute

Committed to serve the needs of the society at large by imparting state-of-the-art Engineering education and to provide knowledge and develop ATTITUDE, SKILLS and VALUES, leading to establishment of quality conscious and sustainable research oriented Educational Institute.

Vision of the Institute

Empowering through quality technical education.

Vision of the Department

Development of all round, socially responsible, innovative electrical professionals and researchers leading to empowerment to serve needs of society, meet global challenges and emerge as Centre of Excellence.

Mission of the Department

M1: Establish vibrant learning environment to enable students for lifelong learning with ethical practices to face challenges of electrical engineering field and globalization by providing state-of-the-art infrastructural facilities.

M2: Promote active learning, critical thinking and engineering judgment coupled with business, entrepreneurial skills.

M3: Expose to recent technological advancements and industrial professional practices.

M4: Introduce PG Programs and establish recognized research centre.

M5: Provide conducive environment and promote intellectual (scholarly) pursuits for encouraging innovation, research, real world problems with multidisciplinary approach.

M6: Offer consultancy and R&D services to various social, educational, industrial and commercial organizations for self reliance.

M7: Establish centre of excellence in the field of power quality and energy management.

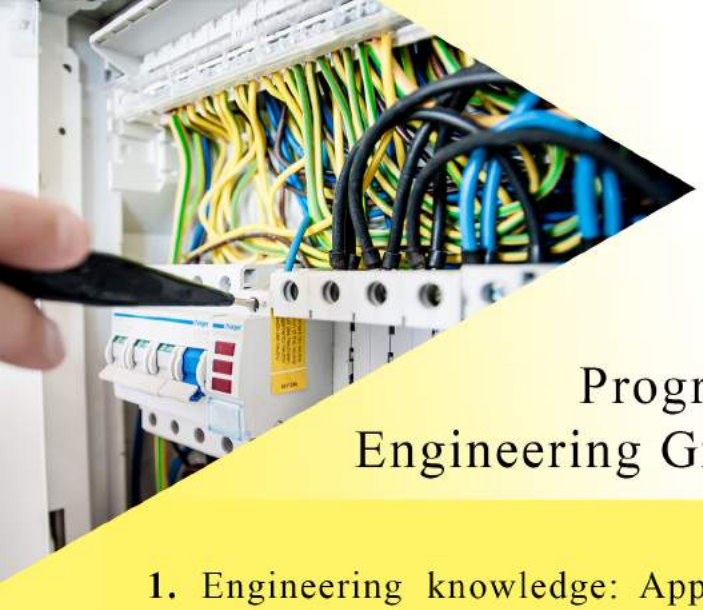
Program Educational Objectives

PEO1: To provide solid foundation in mathematics, science,humanity,environment and engineering fundamentals.

PEO2: To train students with wider electrical engineering concepts so as to comprehend, simulate, analyze, design, solve, draw inferences, realize and foster creativity, innovation and research to excel in technical field.

PEO3: To provide conducive academic environment to inculcate professional skills, ethical practices and soft skills leading to th entrepreneurship development, enhancement of employability, success in competitive examinations and life-long learning.

PEO4: To relate engineering issues to socio-economic context with multidisciplinary approach to address the problem of real world.



Program Outcomes:
Engineering Graduates will be able to:

1. Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

2. Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.

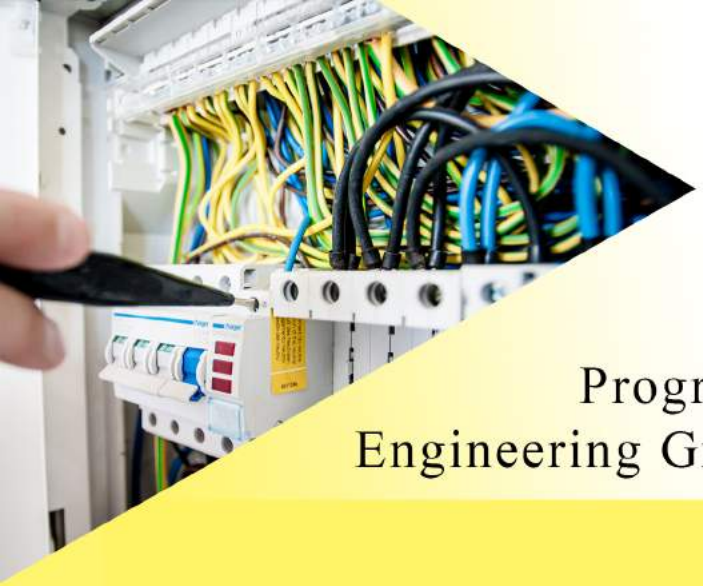
3. Design/development of solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

4. Conduct investigations of complex problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.

5. Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

6. The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

7. Environment and sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.



Program Outcomes:
Engineering Graduates will be able to:

8. Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

9. Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

10. Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

11. Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

12. Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.

Program Specific Outcomes (PSO)

Students will be able to:

PSO1: Apply fundamentals of Electrical Engineering to solve real time problems with social and multi-disciplinary approach.

PSO2: Model, simulate, analyze, critically evaluate and interpret the results with acquired professional skills and ethical practices, leading to enhancement of employability.

TECHNICAL ARTICLE

Solution For High Short Circuit Problems In Low And Medium Voltage Networks

Rahul Bhat
Business Development Manager
ABB Calor Emag Medium Voltage Products
Ratingen,/ Germany

1.Introduction

The growing energy demand and the need for stable power supply are among the major challenges faced by consumers, power producers and network operators. With the rising demand for energy worldwide, existing power distribution systems and power grids are being expanded. At the same time it is also desirable to couple more and more sources in parallel for a more reliable and flexible network.

Coupling of sources might be a possible solution for increasing demand and reliable supply but the resulting fault levels exceeding the existing switchgear limits pose a significant problem to be addressed. There are several methods in which this problem is solved by the protection engineers/ planners. These methods can be primarily categorized in two main approaches:

1. Type-1: Fault current limitation by current interruption e.g. fuses, Is-limiters
2. Type-2: Fault current limiters with current suppression e.g. reactors, superconducting FCL

The difference between the two methods can be visualized in the below Figure-1 indicating the short circuit fault reduction with above mentioned principles.

Fuses and reactors are the well-known conventional solutions to short circuit problems, which also find their mention in the text books and most of the electrical engineers are well versed with their functioning. This article is to present the drawbacks of the conventional techniques and introduce relatively new type of fault current limiters, which overcome these drawbacks and are less known.

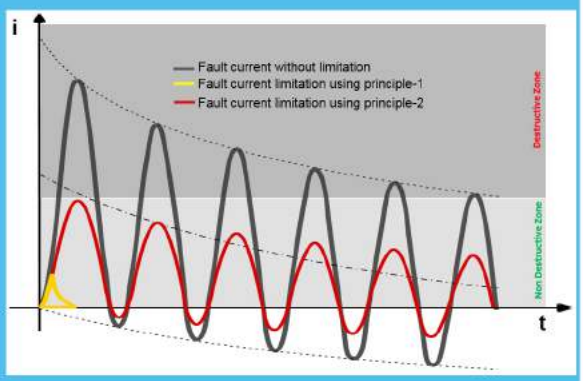


Figure 1: Short circuit fault reduction

TECHNICAL ARTICLE

2. Drawbacks of the conventional techniques:

2.1 Fuses

Fuses are the most popular type of fault current limiters used. They are made up of thin metal strips smaller in cross-section as compared to the conductor in that section. The resistance of fuse is such that it act as a conductor in the normal time and as soon as short circuit fault occurs they melt within milli seconds due to the heat generated by current, isolate the faulty section and therefore protect the system from damage due to high short-circuit current.

The biggest limitation of using fuses for high power industries is that it is difficult to make a fuse element that can carry a high rated current and at the same time have a controlled melting for high short circuit currents. They are only available for limited ratings e.g. for a medium voltage application (> 1kV) the fuses are only available up to 250 A rated current. Therefore for high power applications where rated currents itself are more than 300 A they cannot be used.

2.2 Reactors / increasing the source impedance

After fuses reactors are the most commonly used solution for limiting the short circuit currents. The limitation can also be achieved by increasing the source impedance e.g. increasing the impedance of the transformer feeding the loads. However, higher impedance means following major drawbacks:

1.High power losses due to continuous high impedance in the network
2.Poor voltage stability and high voltage drops during motor starting
3.Additional reactors required are very large and take a huge amount of space

To overcome these challenges the fault current limiters which act as conductor during the normal time with negligible losses and only operate at the time of short circuit fault to limit it are gaining ground. There are lots of advancements happening in this area and the most popular techniques used currently are:

l.Fault current limiters based on pyrotechnic (Type-1)
2.Fault current limiters based on cryogenic technology (Type-2)

Though there has been lot of development in the fault current limiters based on pyrotechnic, the fault current limiters based on cryogenic technology are still relatively very new and under test phase.

TECHNICAL ARTICLE

3. Fault current limiters with based on pyrotechnic (Type-1)

Pyrotechnic is basically the science of using materials that are capable of undergoing self-contained exothermic chemical reactions and can create a blast. To understand the functioning of this material airbags in our cars are a good example. The airbag is inflated by the gas produces by the trigging of the chemical explosive material, when sensors in the car detect deceleration due to hitting a solid object.

ABB has developed such pyrotechnical fault current limiters long back which use a similar chemical material to break the current at the time of a short circuit fault and are called by the product name Is-limiters.

3.1 Operating Principle and Primary Parts

The main current path (hollow copper bus) contains a conductive copper bridge with a pyrotechnical chemical charge inside (yellow part in the below Figure-2). The Is-limiter control unit continuously monitors the instantaneous value of the current (I_{inst}) and the rate of rise of current (di/dt). Once these set values for a high short circuit current are detected by the electronics an impulse is sent to the chemical element which blows the hollow conductor pyro-technically and the current flowing through it commutates to the parallel HV HRC fuse, causing the conductors in the fuse to melt. Using an ultrafast electronics along with this pyrotechnic an Is-limiter is able to trip within 0.6 msec after detection. To understand the fast response time of the FCL a comparison has been made in Figure-3 with the circuit breaker operating time.

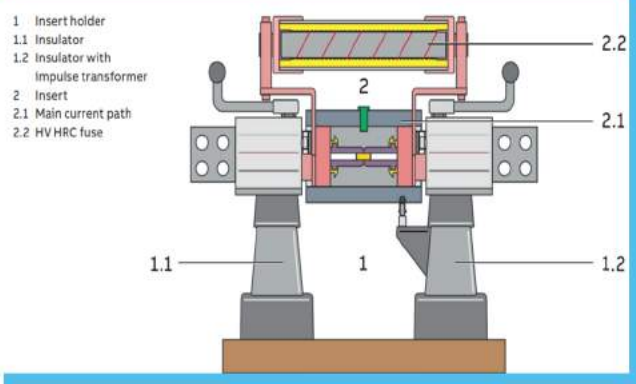


Figure-2: Sectional view of IS-LIMITER primary parts

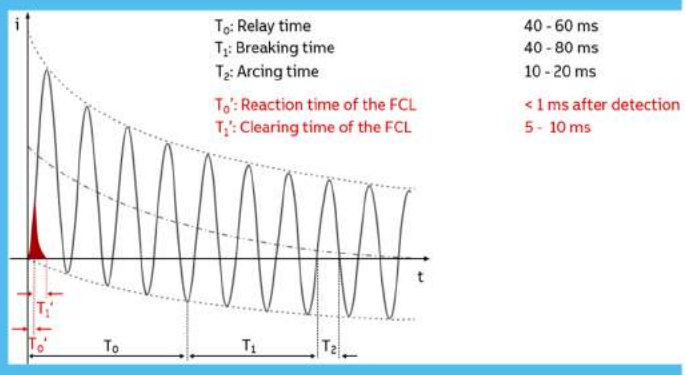


Figure-3: Operating time comparison of an Is-limiter / FCL (in red) with a normal circuit breaker.

TECHNICAL ARTICLE

4. Fault current limiters with based on cryogenic technology (Type-2)

In physics, cryogenics is the production and behaviour of materials at very low temperatures and Superconductivity is a phenomenon of exactly zero electrical resistance and expulsion of magnetic flux fields occurring in certain materials, called superconductors, when cooled below a characteristic critical temperature. The concept of using the superconductors to carry electric power and to limit peak currents has been around since the discovery of superconductors and the realization that they possess highly non-linear properties.

SFCLs utilize the superconducting material as the main current carrying conductor under normal grid operation. When a fault occurs, the current increases and causes the superconductor to quench thereby increasing its resistance exponentially. The current level at which the quench occurs is determined by the operating temperature, and the amount and type of superconductor. The rapid increase in resistance produces a voltage across the superconductor and causes the current to transfer to a shunt, which is a combined inductor and resistor. The shunt limits the voltage increase across the superconductor during a quench. In essence, the superconductor acts like a switch with millisecond response that initiates the transition of the load current to the shunt impedance. Ideally, the incipient fault current is limited in less than one cycle.

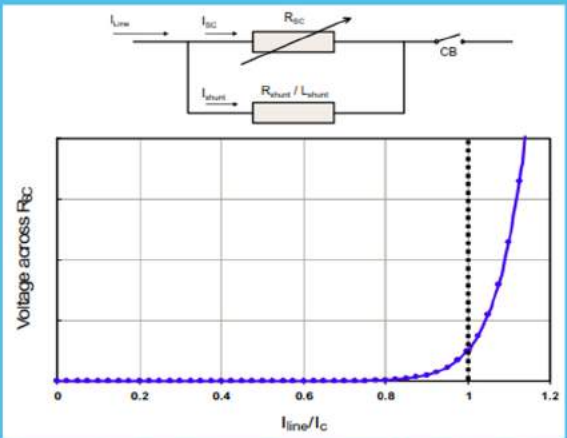
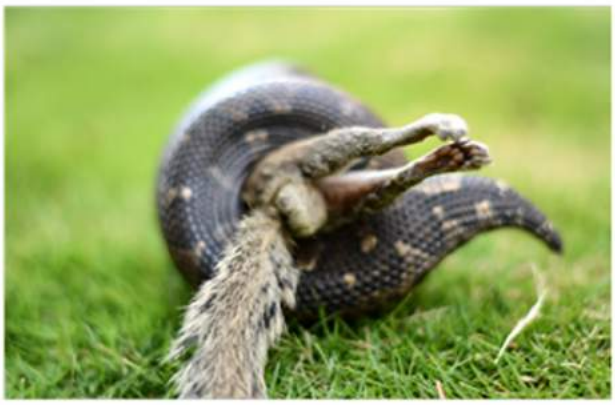


Figure-4: Resistive Type SFCL with Shunt Element and a normalized plot of voltage and current in a superconductor at a constant temperature and magnetic field

Several hundred patents exist showing theoretical ways in which this phenomenon might be used to control fault currents in the electric power grid. However, efforts to develop the concepts into commercially viable product have culminated in only a few practical designs and even fewer working prototypes. Many of these designs have shortcomings (e.g. size, performance, reliability, recovery under load, or cost) that hinder them from reaching full commercial potential.

ALUMNI SUCCESS STORIES



Prasad V. Joshi,
Best Photographer
Completed BE Electrical Engineering in AY 2011-12 and ME Power System in AY 2014-15

It all started with a digital camera that my mother bought after seeing an offer from "Naaptol" in local newspaper, back in 2012. I was on the verge of completing my graduation in Electrical Engineering from one of the prestigious engineering institute, the "K. K. Wagh College of Engineering Education and Research, Nashik". As soon as I passed out from KKWIEE&R in July 2012, there were lot of questions on my mind, major was, "whether to go for job in industry or to pursue master's degree in electrical engineering...?" While finding answers for these questions simultaneously I spent time with the "KODAK C183" that my mother bought for our family. I did some courses of "Art of Living" that helped me to become more creative & increased my patience. I joined the photo-walks arranged by "Foto Circle Nashik", met people who were doing photography from decade or two, & things started changing. By the time I joined NDMVPS's KBTCOE, Nashik-13 on 01/01/2013 as lecturer in Electrical Engineering. My bonding with campus of KKW drew me to take admission for M.E. Electrical Power Systems in July 2013 & I again become a part of one of the most renowned Electrical Engineering Department in SPPU.

My curiosity about photography increased on larger scale when my father bought "NIKON D5200" for me. I started participating in competitions and my photographs were getting published in exhibitions, magazines and newspapers. In addition to this, professors at KKW invited me as judge for photography competition during Karmaveer Expo too. It gave me more strength and at the same time motivated me to carry forward photography as my hobby. In last four years, I won 4 awards, two from Foto Circle Nashik, and one from Indian Institute of Architects and one from DCP Expeditions. One of my photographs in qualified for World Photographic Forum Awards-2017 under category-wildlife; the same photograph is qualified for DCP Annual Awards-2017. The National Geographic Editor - David Lee sir has added one of my photos from Nashik to his favourite. These are the small things that keep me moving on the journey to become a good hobbyist photographer.

ACHIEVEMENTS: STUDENTS

Nilesh Balu Gaikwad
SE Electrical (IInd Shift)
A boy from a small village
Shivrai, Tal. -Kannad,
Dist.-Aurangabad, has created
history in para badminton

Sr. No.	Name of Tournament	Venue	Year& Month	Result	Event
1.	Senior National Para Badminton Championship	Faridabad (Haryana)	January 2016	2 Bronze Medals	1. Singles 2. Doubles
2.	National Para Badminton Championship	Bangalore (Karnataka)	December 2015	3 Bronze Medals	1. Singles 2. Doubles 3. Mixed Doubles
3.	National Open Para Badminton Championship	Chennai (Tamil Nadu)	September 2015	1 Bronze Medal	Singles
4.	National Open Para Badminton Championship	Chennai (Tamil Nadu)	September 2014	1 Bronze Medal	Doubles
5.	Maharashtra State Paralympic Multisports Championship	Nagpur (Maharashtra)	January 2014	1 Gold Medal	Singles
6.	Maharashtra State Paralympic Games	Mumbai (Maharashtra)	March2015	1 Silver Medal	Singles
7.	Senior National Para Badminton Championship	Mumbai (Maharashtra)	December 2014	Participation	1. Singles 2. Doubles
8.	QNET National Para Badminton Championship	Bangalore (Karnataka)	December 2015	Participation	1. Singles 2. Doubles
9.	Uganda Para Badminton International Championship	Kampala (Uganda)	April 2017	Gold	Doubles

PLACEMENT

Sr. No.	Name of the student placed	Name of the Employer
1	Chavan Divyani Sunil	Torrent Power Ltd.
2	Kale Vikrant Shriram	Torrent Power Ltd.
3	Shinde Aniket Abasaheb	Torrent Power Ltd.
4	Patil Sagar Sanjay	Torrent Power Ltd.
5	More Vivek Vilas	Torrent Power Ltd.
6	Nerkar Rupesh	Torrent Power Ltd.
7	Gokhale Gaurish Shreedhar	ABB Ltd.
8	Koli Samruddhi Jogendra	ABB Ltd.
9	Chavan Vinayak Vilas	ABB Ltd.
10	Manwatkar Atharva Dinesh	Amazon Ltd.
11	Bhatia Rajat	Amazon Ltd.
12	Chougaonkar Manas Devdatta	Amazon Ltd.
13	Kumar Vikas Suresh	Amazon Ltd.
14	Shahane Krutika Ramdas	Amazon Ltd.
15	Kshirsagar Jugalkumar Bhaskarrao	Jindal Saw Ltd.
16	Kolhe Mahesh Raosaheb	Hind Rectifiers
17	Bhamare Sadhana Sateesh	Rishabh Instruments, Nashik
18	Nalawade Pankaj Ramesh	FIN IQ Consulting India Pvt. Ltd.
19	Kopulakar Pankaja Rangnath	FACE Ltd.
20	Sonawane Dipti	Fox Solutions

INDUSTRIAL VISITS

S. E. Electrical Engineering

Sr. No.	Subject	Name of Industry	Date
1	Electrical Machines-I	Crompton Greaves Ltd. LT Motor Division, Ahmadnagar	14/02/2017
2	Power System-I	132kV Substation Takli, Nashik	15/02/2017
3	Power System -I	132 KV Mhasrul Substation	16/02/2017
4	Numerical Methods and Computer Programming	Teknocrate's Control Systems Pvt. Ltd, Satpur, Nashik	22/02/2017
5	Numerical Methods and Computer Programming	Teknocrate's Control Systems Pvt. Ltd, Satpur, Nashik	22/02/2017

T. E. Electrical Engineering

Sr. No.	Subject	Name of Industry	Date
1	Utilization of Electrical Energy	Electric Loco Workshop, POH, Central Railway, Bhusawal	05/01/2017
2	Utilization of Electrical Energy	Electric Loco Workshop, POH, Central Railway, Bhusawal	18/01/2017
3	Control Systems-I	The Sanjivani Sahakari Sakhar Karkhana Ltd, Kopargaon	21/01/2017
4	Design of Electrical Machines	Fairdeal Transformers Pvt. Ltd, Ambad-Nashik	03/02/2017
5	Design of Electrical Machines	Fairdeal Electrical Engineering Pvt. Ltd, Ambad-Nashik	06/02/2017
6	Power Systems -II	132 kV, EHV Sub-Station, Ambad-Nashik	17/02/2017
7	Power Systems -II	400kV substation, Babhaleswar, Tal. Rahata, Dist. A.Nagar	29/03/2017

B. E. Electrical Engineering

Sr. No.	Subject	Name of Industry	Date
1	Switchgear and Protection	Crompton Greaves Ltd. MIDC, Ambad, Nashik	20/01/2017
2	Power Electronics Controlled Drives	Jawahar Shetkari Sahkari Soot Girani (Spinning Mill), Dhule	27/01/2017
3	Power Electronics Controlled Drives	Jawahar Shetkari Sahkari Soot Girani (Spinning Mill), Dhule	28/01/2017
4	Switchgear and Protection	Crompton Greaves Ltd. MIDC, Ambad, Nashik	04/02/2017
5	Smart Grid	Prestige Pride, Nandur Naka, Nashik Road, Nashik	16/02/2017
6	Smart Grid	Prestige Pride, Nandur Naka, Nashik Road, Nashik	18/02/2017
7	HVDC & FACTs	Crompton Greaves Ltd. MIDC, Ambad, Nashik	25/02/2017
8	HVDC & FACTs	HVDC ±500 kV Terminal Station, MSCTCL, Padghe	04/04/2017

EXPERT LECTURES

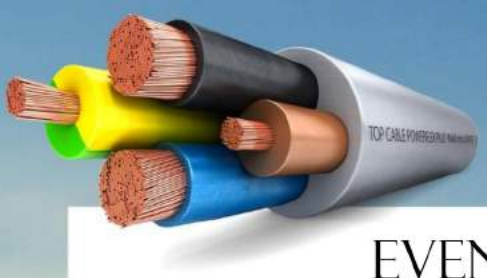
Sr. No.	Name of Expert Person	Industry (or) Organization Name	Topic
1	Mr. Ambrish Gokhale	L & T Ltd. Nashik	Relay Coordination
2	Mr. Dharababu T	Siemens Ltd, Aurangabad	Gas Insulated Substation
3	Mr. Parag Salvekar	Kapikulam Mechatronics, Nashik	Robotics and Automation
4	Mr. Chainesh Patil	Schneider Electric, Nashik	Package Substation
5	Mr. Pramod N. Dashpute	Industry	Green Audit
6	Mr. Sachin Mishra	ABB Ltd, Satpur	Switchgear and Protection
7	Mr. Shrikant Jadhav	CAETD	Control Panel Design and Manufacturing
8	Prof. Dr. A. P. Tiwari	Institute and R&D Organization	Kalman Filtering: Application to Nuclear Reactor
9	Mr. Bhushan Ugale	Matoshri College	IOT & Home Automation
10	Mr. Shrikant Jadhav	CAETD	Switchgear Panel Design
11	Mr. Sachin Mishra	ABB Ltd, Satpur	Medium Voltage Switchgear
12	Mr. Pramod Daspute	PCRA	Energy Audit
13	Mr. Chainesh Patil	Schneider Electric, Nashik	Packaged Substation
14	Mr. Parag Salvekar	Entrepreneur	Robotics & Automation
15	Mr. Dharababu T.	Siemens Ltd, Aurangabad	Gas Insulated Switchgear
16	Mr. Omkar Buwa	L&T Ltd. Nagpur	Protection of Generator
17	Mr. Krunal Dhakate	Career Launcher	MBA, GRE preparation
18	Mr. Amrish Gokhale	Schneider Electric	Type 2 Co-ordination
19	Prof. N. M. Rao	Indian Railway Institute of Electrical Engineering Nashik	Electric Traction

EVENTS ORGANISED BY DEPARTMENT

Sr. No.	Title of Event	Dates of Event	Total No. of Participants
1	PSRES 2016-17	21st and 22nd March 2017	33
2	Working Model Contest, IET Karmaveer Expo' 2017	21st and 22nd March 2017	279

IET- Karmaveer Expo 2017
March 21-22, 2017

- Total Models presented in group-A: 39 and participants: 125
- Total Models presented in group-B: 22 and participants: 63
- Total Models presented in group-C (IOT): 12 and participants: 50
- Total Models presented in group-D polytechnic groups: 10 and participants: 41
- Total Models presented in Expo 2017: 83 and participants: 279
- Total Posters Presented: 39 and participants: 108
- Total Photography entries: 30 and participants: 30



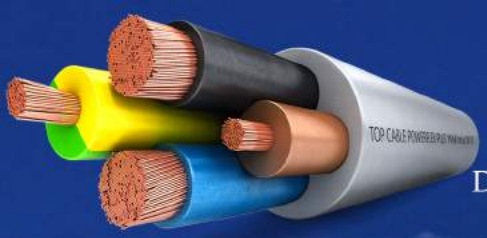
EVENTS ATTENDED BY STUDENTS

Sr. No.	Name of Student	Title of Event	Name of event	Organizing Institute	Date	Prize / Award	Level
1	Bahirshet Nikita M.	Technical and Entrepreneurial Festival		IIT Kanpur	23-26/3/2017	Participation	National
2	Saurabh Dalvi	Quiz competition	Anvit-17	GES's R. H. Sapat College of Engg Management and Research Nashik	15/2/2017	2nd	State
3	Saurabh Dalvi	The quizzical blaze	Check-Meck-2K17	Guru Gobind Singh College of Engg and Research Centre Nashik	13-14/2/2017	1st	State
4	Saurabh Dalvi	Paper Presentation and technical events	Techxellence-2017	Sandip Institute of Technology and Research Centre Nashik	20/1/2017	1st	State
5	Saurabh Dalvi	Quiz competition	Innovision-2017	GES's R. H. Sapat College of Engg Management and Research Nashik	25/2/2017	1st	State
6	Saurabh Dalvi	Quiz competition	Electrosparx	GES's R. H. Sapat College of Engg Management and Research Nashik		1st	State
7	Nilesh Nagare	Quiz competition	Electrosparx	GES's R. H. Sapat College of Engg Management and Research Nashik		1st	State
8	Nilesh Nagare	Quiz competition	Anvit-17	GES's R. H. Sapat College of Engg Management and Research Nashik	25/2/2017	2nd	State
9	Nilesh Nagare	The quizzical blaze	Check-Meck-2K17	Guru Gobind Singh College of Engg and Research Centre Nashik	13-14/2/2017	1st	State
10	Nilesh Nagare	Quiz competition	Innovision-2017	GES's R. H. Sapat College of Engg Management and Research Nashik	25/2/2017	1st	State
11	Saurabh Dalvi	Quiz competition	Desire-2017	Sandip Institute of Engg and Management Nashik	10-11/2/2017	Participation	State
12	Tejas Gavali	Quiz competition	Computer society of India	METCOE	2016-17	Participation	State

13	Patil Shilpa B.	Transform Maharashtra	Transform Maharashtra	Transform Maharashtra	1/5/2017	Participation	State Level
14	Ashwini Puranik	Gestronika 2K17	Poster Competition	GES's R. H. Sapat College of Engg Management and Research Nashik	15/2/2017	Participation	Inter collegiate
15	Rajhans Kshipra Sunil	IET PATW Presentation	PATW	IET NLN	30/3/2017	First	Regional
16	Wakhare Prasad Vivek	Mechsummit 2k17	Street Play	Sandip COE, Nashik	18/2/2017	Second	National
17	Wakhare Prasad Vivek	NEC Techfest 2017		NEC, Nashik	28/2/2017	First	National
18	Rajhans Kshipra Sunil	Mechsummit 2k17	Street Play	Sandip COE, Nashik	17-18/2/2017	Participation	National
19	Nagare Nilesh	Techxellence 2017	Paper presentation	SITRC, Nashik	20/1/2017	First	National
20	Ashish Yadav	Transform Maharashtra	Transform Maharashtra	Transform Maharashtra	1/5/2017	Participation	National
21	Hrishikesh More	Transform Maharashtra	Transform Maharashtra	Transform Maharashtra	1/5/2017	Participation	National
22	Nilesh Gaikwad	Para-Badminton	Para-Badminton	Uganda Para Badminton International Championship	26-30/4/2017	Gold	International

EVENTS ATTENDED BY FACULTY

Sr. No.	Name	Title	Organized by	Date	Duration
1	R. K. Munje	Syllabus revision of ME Electrical 2017 Pattern	Modern College of Engg in association with SPPU	3 February 2017	1 Day
2	T. N. Date	Syllabus revision of ME Electrical 2017 Pattern	Modern College of Engg in association with SPPU	3 February 2017	1 Day
3	S. M. Akolkar	Syllabus revision of ME Electrical 2017 Pattern	Modern College of Engg in association with SPPU	3 February 2017	1 Day
4	T. N. Date	Numerical Methods with MATLAB/Octave for Engineers	MGM's JNEC, Aurangabad	2-6 January 2017	5 Days
5	J. P. Shah	Smart Grid: Renewable Integration and Microgrids	VJTI, Mumbai	25 Feb-1 March 2017	5 Days
6	N. N. Jangle	Numerical Methods with MATLAB/Octave for Engineers	MGM's JNEC, Aurangabad	2-6 January 2017	5 days
7	N. N. Jangle	Online NPTEL certification course on, "Outcome Based Pedagogic Principles For Effective Teaching".	IIT Madras	Jan-Mar 2017	4 Weeks
8	T. N. Date	Online NPTEL certification course on, "Outcome Based Pedagogic Principles For Effective Teaching".	IIT Madras	Jan-Mar 2017	4 Weeks
9	G. N. Jadhav	Online NPTEL certification course on, "Outcome Based Pedagogic Principles For Effective Teaching".	IIT Madras	Jan-Mar 2017	4 Weeks
10	S. J. Shaikh	Online NPTEL certification course on, "Outcome Based Pedagogic Principles For Effective Teaching".	IIT Madras	Jan-Mar 2017	4 Weeks
11	R. S. Mane	Online NPTEL certification course on, "Outcome Based Pedagogic Principles For Effective Teaching".	IIT Madras	Jan-Mar 2017	4 Weeks
12	H. R. Shelar	Online NPTEL certification course on, "Outcome Based Pedagogic Principles For Effective Teaching".	IIT Madras	Jan-Mar 2017	4 Weeks
13	N. N. Jangle	Online NPTEL certification course on, "Matlab Programming For Numerical Computation".	IIT Madras	Jan-Mar 2017	4 Weeks
14	T. N. Date	Online NPTEL certification course on, "Matlab Programming For Numerical Computation".	IIT Madras	Jan-Mar 2017	4 Weeks
15	G. N. Jadhav	Online NPTEL certification course on, "Matlab Programming For Numerical Computation".	IIT Madras	Jan-Mar 2017	4 Weeks



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This newsletter has covered all the events which organized in and by Electrical Engineering Department, K. K. Wagh Institute of Engineering Education & Research, Nashik. We are here going to invite suggestions, feedback and query for improvement in future newsletters, if any, with the warm regards.