

**Invited Tutorials and Talks by Prof. S. V. Kulkarni at Various Workshops in India**

1. IEEE Pune Section, IEEE PES Distinguished Lecturer Program (DLP) Talk, “Insights into Design of Transformers” November 29, 2023 (online mode).
2. A member of a panel discussion on “Industry – Institute Collaboration” at the International Conference on Transformers, TRAFOTECH-2023, New Delhi (November 25, 2023).
3. IEEE PES MP Chapter, IEEE PES Distinguished Lecturer Program (DLP) Talk, September 26, 2023, on "Effective Technical Communication" (online mode).
4. An invited talk on "Activation Energy in Electrical Conduction Phenomena– A Physical Perspective" in the National Symposium on "High Voltage - Energy Storage Capacitors and Applications" at BARC, June 22, 2023.
5. IEEE Distinguished Lecturers Program (DLP) Lecture on “Transformer System Interactions and Modeling,” Organized by IEEE PES Madhya Pradesh Section Chapter, on February 14, 2023 at 6.00 pm.
6. A talk on “Insights into Electromagnetic Forces, Eddy Currents, and Computational Methods” at a workshop in BARC (July 2022).
7. A talk on "Industry - Institute Interactions: A Perspective” at One Week AICTE-ISTE Sponsored Faculty Development Program Organized by Walchand College of Engineering, Sangli (4<sup>th</sup> March 2022); Delivered the same lecture at an FDP organized at GP Nanded (7<sup>th</sup> March 2022).
8. A talk on "Finite Element Method: Theory and Applications" at AICTE Sponsored QIP Short Term Course on Emerging Applications of Engineering Electromagnetics, Department of Electronics and Communication Engineering, IIITDM Kancheepuram (18<sup>th</sup> February, 2022).
9. Invited talk "Transformer Engineering for Emerging Power Systems" in CATCON 2021 (4<sup>th</sup> December 2021).
10. Gave a talk on “Electromagnetic Principles in Pulse Power Systems” in One Day webinar on Electromagnetics and Pulsed Power Systems at VJTI Mumbai on 4<sup>th</sup> Jan 2021
11. Gave an online talk on “Latest Trends and Advances in Transformer Design” on December 7, as a part of National Tutorial (Online) on 'Power Transformers' held on 7-9 December 2020 organized by CBIP & CIGRE India
12. Gave an online talk on “Numerical Methods for High Frequency Electromagnetics”, 19 Dec, 2020 in STTP on "Evolution of RF Electromagnetics from Microwave to mmWave Technologies" from 19 Dec, 2020 to 23rd Dec, 2020 in VJTI, Mumbai
13. Gave an online talk on "Insight into Maxwell's Equations" at Research Scholars' Week: Engineering (RSW-2020) organized by the National Institute of Technology Kurukshetra under the TEQIP-III-Twinning System with Engineering College Bikaner during September 17-22, 2020

14. Delivered a talk on Recent Trends in Transformer Diagnostics on 17<sup>th</sup> September 2020 from 10:30 am to 11:45 am as part of AICTE sponsored online Short-Term Training Program (STTP) on "IoT & Advanced Power Electronics Applications in Smart Grid" from 14 September to 18 September 2020, organized by K. K. Wagh Institute of Engineering Education and Research, Nashik
15. Delivered a talk on Application and Design of Magnetic Devices for High Frequency Power Electronic Circuits on 8<sup>th</sup> September 2020 from 11.45 am to 1.00 pm as part of One-week online Faculty Development Program (FDP) on "Opportunities & Challenges in Emerging Technologies of Electrical Power System" organized by Department of Electrical Engineering, JEC, Jabalpur
16. Gave a Keynote lecture on Recent Trends in Transformer Diagnostics on 7<sup>th</sup> Sept 2020 as a part of Online Short-Term Course on 'Emerging Techniques in Condition Monitoring of Electrical Apparatus' from 07-09-2020 to 11-09-2020 organised by NIT Srinagar
17. Delivered an invited talk on "Insights into Maxwell's equations" in a National Workshop on Electromagnetics and Microwave Engineering: Pedagogy, Research Trends and Applications (EMPRA 2020), Jan 2-4, 2020 organized by BITS Pilani, Hyderabad Campus and technically co-sponsored by IEEE MTT/AP/EMC Society
18. Gave a talk on 'Technical Communication' in Faculty Development Program, 'Shifting Teaching Learning Paradigms Through Innovative Pedagogy during 9-14 December 2019, at VJTI Mumbai
19. Delivered an invited talk on "Insights into Maxwell's equations" as a part of Teacher Development Programme on Inspired Teaching of Electromagnetics organized by IEEE Antennas and Propagation Society, Madras Chapter in association with ECE Dept, SSN College of Engineering Chennai on October 18, 2019
20. Delivered an invited lecture on "Introducing Vector Calculus" as a part of Teaching Mathematical Concepts in Summer Training Program on Advanced Pedagogies: Active Learning and Digital Tools on June 2019, conducted through Knowledge Incubation under TEQIP III (KITE) project at IIT Bombay, funded by MHRD, Govt of India and the World Bank. Online link: <https://youtu.be/iNSA1eHoacY>
21. Gave a set of lectures on Finite Element Method and Transformer Diagnostics in a Short Term Training Program at VNIT Nagpur organized by IEEE Bombay Section and VNIT Nagpur on February 13, 2019
22. Gave a set of lectures on Finite Element Method and Transformer Diagnostics in a Short Term Training Program at NIT Raipur organized by IEEE Bombay Section and NIT Raipur on February 14, 2019
23. Delivered an invited talk on "Transformer Engineering for Future Power Systems" at a National Workshop NWET-2019 at Silicon Institute of Technology, Bhubaneswar on January 31, 2019
24. Invited to give a talk on "Revisiting Important Concepts in Electromagnetics" at Bhabha Atomic Research Centre, Mumbai on December 20, 2018

25. Invited to give a talk on “Computational Electromagnetics” at International Conference on Electrical Sciences (ICES), SASTRA Deemed University on August 10, 2018
26. Invited to give a talk on “Computational Electromagnetics and Applications” as a part of AICTE-ISTE approved One Week Short Term Training Program on “Commercial Trends for Antennas and Microwave Technologies: Inclination towards Start-ups” held at St. Francis Institute of Technology, Mumbai on June 28, 2018
27. Invited to give a talk on “Basics of Electromagnetics and basics of radiations in antenna” as a part of AICTE-ISTE approved One Week Short Term Training Program on “RF Antenna: Design and Analysis” held at K J Somaiya College of Engineering, Mumbai on June 18 2018
28. Invited to give talks on “Practical transformer design” and “Modeling of transformers for transient and diagnostic studies” as a part of One Week Short Term Training Program on Monitoring, Modelling and Analysis of Power Transformer organized by IITRAM Ahmedabad on 15th May 2018
29. Invited to give a talk on “Future transformers” at ELEX 2017, Kochi (13<sup>th</sup> December 2017).
30. Invited to give a talk on “Basics of EM Radiation and antennas” at Refresher Course on Antennas organised by IEEE Antennas and Propagation Society, Madras Chapter, Chennai, India (30<sup>th</sup> October 2017)
31. Invited to give a talk on “Electromagnetic and Coupled Field Computations: A Perspective” at a conference organized by COMSOL (9<sup>th</sup> June 2017)
32. Invited to give a keynote lecture “An Overview of Applications and Research Trends in Electromagnetics” at International Conference on Intelligent Systems and Signal Processing, Anand, Gujarat, India (March 24, 2017)
33. Invited to give a talk on “A virtual interactive electromagnetic laboratory: an effective pedagogical approach” at IEEE-INAE Symposium on Electromagnetic Education and Research SSN College of Engineering, Tamil Nadu, India December 12-13, 2016
34. Invited to give a talk on “A virtual interactive electromagnetic laboratory: an effective pedagogical approach” at IEEE-INAE Symposium on Electromagnetic Education and Research SSN College of Engineering, Tamil Nadu, India December 12-13, 2016
35. Gave a talk on Design of Power Transformers at PGCIL Gurgaon (28-09-2016)
36. Invited to give a talk on “Revisiting some important EM concepts” at a workshop organized by IEEE Microwave Theory and Techniques Society, Madras Chapter (January 20, 2016)
37. Gave a talk on “Health Monitoring and Diagnostics of Power System Equipment” at a workshop organized jointly by IIT Bombay, GETCO and ABB (06-06-2014)
38. Gave a talk on “Phase shifting transformers” at a workshop Innovative Measures for Grid Stability including Phase Shifting Transformers & WAMs organized by CBIP, India, on 29-30 May 2014

39. Invited to give a talk on “CRGO steels: Characteristics, Performance, and Aging” at International Workshop on “Influence of Electrical Steels on the Quality and Service Life of Transformers” organized by CPRI at CBIP New Delhi (25-04-2014)
40. Invited by India Smart Grid Forum (ISGF) to give a talk on Solid State Transformers at a workshop in new Delhi (January 18, 2013)
41. Invited by Central Power Research Institute to give a talk on *Cores in Transformers: An Overview* at a workshop on CRGO, CRNGO & Amorphous Electrical Steels in New Delhi (January 18, 2013)
42. Invited to give a tutorial on *Power Transformers: Basic Design Principles and Advanced FEM Based Analysis* at the CBIP Conference on Large Power Transformers, New Delhi (2013)
43. Invited by CBIP to deliver two lectures, viz. ‘Challenges in Design of Transformers: Onerous Conditions and Failure Mechanisms’ and ‘Recent Trends in Transformer Diagnostics’ at a workshop in New Delhi (June 18-19, 2012)
44. Invited to give a keynote speech on ‘Electromagnetic and Coupled Field Computations: A Perspective’ at COMSOL Conference held in Bangalore (November 5, 2011)
45. Invited to give a talk on ‘Recent and Emerging Trends in Transformer Engineering’ at a conference Transformer Market 2011 in New Delhi (October 18, 2011)
46. Invited to give lectures on *Electromagnetics* and *Finite Element Method* at a training program organized at C-DAC Bangalore (June 14, 2011)
47. Invited Indian Transformer Manufacturers Association (ITMA) to give a talk on Recent and Emerging Trends in Transformer Engineering” at Energy India Conference (December 17, 2010)
48. Invited by CTR Manufacturing Industries Limited Pune to give a talk on “Recent and Emerging Trends in Transformer Engineering” (December 11, 2010)
49. Invited by Anna University to give lecture on ‘Electromagnetic Forming: Simulation & Computational Aspects’ in International Conference on Electromagnetic Forming Technology : EMFT-2010 (November 12, 2010)
50. Invited by BHEL Hyderabad to talk on “Insulation design in power transformers” (October 22, 2010)
51. Invited lectures at ANSYS, Pune on “Electromagnetic Field Computations” (September 6, 2010)
52. Invited to give lectures on Electromagnetics and FEM at SAC-ISRO, Ahmedabad, as a part of course conducted by ZuesNumerix Company (June 9, 2010)
53. Invited by VJTI and IEEMA to deliver lecture on “Insulation design using FEM” at Transformer Insulation Workshop (November 20, 2009)
54. Invited by ANSYS for a Panel Discussion on “Smart Engineering Solution” at ANSYS-India Conference held at Pune (November 16, 2009)
55. Invited by Reliance Energy to give a talk on ‘Challenges in design of modern power transformers: onerous conditions and failure modes’ (September 24, 2009)

56. Invited by Doble Company to give a keynote lecture on 'Challenges in design of modern transformers: onerous conditions and failure modes' (24<sup>th</sup> November 2008)
57. Invited by Crompton Greaves Limited to give a talk on "Challenges and Strategies in Transformer Design" (26<sup>th</sup> September 2008)
58. Invited by Crompton Greaves Limited to deliver a talk on "Engineering Electromagnetics" and "FEM Analysis of Electromagnetic and Coupled Systems" (21<sup>st</sup> January 2008)
59. Invited by Doble India to deliver an invited talk on "Challenges in Design of Modern Transformers: Onerous Conditions and Failure Modes" at IndiaDoble Conference (16<sup>th</sup> November 2007).
60. Invited by ANSYS to deliver an invited talk on "FEM Analysis of Electromagnetic and Coupled Systems" at ANSYS India Conference (25<sup>th</sup> October 2007).
61. Invited by Kanohar Electricals, Meerut, to give a guest lecture on 'Special Design Aspects of Power Transformers' (October 2007).
62. Invited lecture at Crompton Greaves Limited on 'Transformer monitoring: recent trends and case study,' (October 8, 2005)
63. Invited lecture "Distribution automation: opportunities and challenges," at National Seminar on *Electrifying India - Engineering Management in Power Sector*, IEEE EMS Bombay Chapter (February 2004)