

## **Resume**



**Dr. Sweta shah**

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**Mobile:** 9979884434.

### **Current Location:**

Ahmedabad- 380015.

Gujarat, India.

### **Personal Information:**

**Date of Birth** : 22<sup>nd</sup> Sept.

**Gender** : Female

**Marital status** : Married

**Nationality** : Indian

### **Professional & Educational Details:**

**Experience** : 20 Years

**No. Of PG Students Guided:** 14

**No. Of Ph.D scholars Guiding:** 05

Thesis Submitted: 01

Ph.D Degree Awarded : 01

### **Educational Qualification:**

<b>Sl.</b>	<b>Name of Degree</b>	<b>University</b>	<b>Grade/Class</b>	<b>Year of Passing</b>
1	Ph.D.	INDUS University	NA	2018
2	M.E. (EPS)	S.P.University	Distinction	2008
3	B.E. (Electrical)	Gujarat University	Distinction	2004
4	D.E.E.	T.E.B.	Distinction	2000

## **Achievements:**

- 1. Gold Medal** in M.E. (EPS) for highest CPI and securing first rank in S.P. University.
- 2. Gold Medal** in D.E.E. Exam for securing first rank in G.P. Ahmedabad.
- 3. Best paper Award** in NOBCON-2017.
- 4. Secured world record of India** for Longest science & Innovation talk series, 2022.
- 5. Secured world record of India** for Student Innovation Fest 2023 organized by Vigyan Gurjari, Gujarat unit of VIBHA.

## **WORK EXPERIENCE:**

<b>Sl.</b>	<b>Name of Employer/ Institute</b>	<b>Designation</b>	<b>Period</b>
<b>1</b>	INDUS Institute of Technology	Asst. Professor, Electrical Engg.	Sept. 2023 - till date
	INDUS Institute of Technology	Asst. Dean R & D, OSD Research	Sept. 2020 - Sept.2023
	INDUS Institute of Technology	Dy. HoD Electrical Engg.	2017 to 2020
	INDUS Institute of Technology	Head, Electrical Engg.	March-15 to Dec-2016
	INDUS Institute of Technology	Asst. Professor, Electrical Engg.	July 2014 to March-15
<b>2</b>	Ahmedabad Institute of Technology	A.P and HOD	August 2005 to July 2014
<b>3</b>	Torrent Power	G.E.T	2004-2005

## **TRAINING PROGRAMMES UNDERTAKEN:**

<b>Sr.No</b>	<b>Name of the Programme</b>	<b>Organizing Institution</b>	<b>YEAR</b>
<b>1</b>	(STTP) Recent trends in power system	A.D.I.T.	2009
<b>2</b>	Workshop- Simulation Orcad	L.D.C.E.	2009
<b>3</b>	Faculty development programme	IIT Gn, IEEE	2013
<b>4</b>	Faculty development programme	SVBIT	2015

5	Faculty Development programme	Ganpat University	2018
6	Faculty Development Programme on recent trends in power system	ITE	2019
7	Workshop on “Intellectual Property Rights”	ITE	2019
8	Workshop on “Recent Developments in Power System Analysis & Protection.”	Adani Institute of Infrastructure	2021
9	Workshop on “Power Electronics for Renewable Energy Based Distributed Generation.”	Indus University	2021
10	Faculty Development Program on Effective Teaching, Strategies & Ethics for Professional Courses.”	Indus University	2021
11	Faculty Development Program on Power Electronic Applications in Electric Vehicles and Energy Storage.	NIT, Karnataka.	2021
12	Workshop on “Recent Trends in Artificial Intelligence.”	IEEE, CIS, PDEU	2021
13	Faculty Development Program on “Design and Optimization of EV charging Technology in Smart Grid Platform.”	AICTE	2021
14	Faculty Development Program on “Recent Trends in Artificial Intelligence.”	AICTE	2021
15	Workshop on “Recent Advances in solar Energy Technologies.”	PU	2022
16	Faculty Development Program on AI & Cloud, Leveraging Generative power in the cloud.	TechSaksham, AICTE	2023

#### CONFERENCES ATTENDED:

Sr.No.	Name of the Programme	Organizing Institution	YEAR
1	5 <sup>th</sup> National Level conference on synergy with energy	SAKET ENGG.	2009

2	7 <sup>th</sup> National Level conference on synergy with energy	SAKET ENGG	2011
3	International conference on smart community	PDPU,GNDH.	2013
4	Workshop on research in engineering	INDUS University	2014
5	Workshop on research methodology	INDUS University	2014
6	NOBCON 2016	NOBEL INSTITUTE OF TECHNOLOGY	2016
7	NOBCON 2017	NOBEL INSTITUTE OF TECHNOLOGY	2017
8	FiMPART International conference	INDUS University	2019
9	Gujarat Vigyan Sammelan GVS 2022	Vigyan Gurjari	2022
10	Gujarat Vigyan Sammelan GVS 2023	Vigyan Gurjari	2023
11	Bhartiya Vigyan Sammelan BVS 2023	VIBHA & Govt. Of Gujarat	2023
12	Gujarat Vigyan Sammelan GVS 2024	Vigyan Gurjari	2024

### **WORKSHOP/FDP/CONFERENCE ORGANIZED:**

1. Workshop on "Industrial Automation – PLC and SCADA" in association with SHAASHTRA '16, IIT MADRAS, October, 2015
2. Workshop on "Numerical Protection Relay Programming and Applications" in association with Gujarat council of Science and Technology (GUJCOST), October, 2019 in collaboration with ABB.
3. Student Innovation Fest - SIF 2022 under Vigyan Gurjari initiative of Govt. of Gujarat.
4. Faculty Development Program on "Research Insight for Beginners." 2021.
5. Workshop on "Cyber security against Cyber Crime." 2022.
6. National Level Conference on Smart City under Gujarat Vigyan Sammelan GVS 2022.
7. National Level Conference on Sustainable and Green Technology under Gujarat Vigyan Sammelan GVS 2022.
8. National Level Conference on Application of Artificial Intelligence in science and technology under Gujarat Vigyan Sammelan GVS 2022.
9. Student Innovation Fest - SIF 2023 under Vigyan Gurjari initiative of Govt. of Gujarat.

10. National Level Conference on 16 different themes under Bhartiya Vigyan Sammelan BVS 2023 organized by VIBHA and Govt. Of Gujarat.

#### **HACKATHON ORGANIZED:**

1. Conducted Internal Hackathon SIH 2020 at Indus University.
2. Appointed as SPOC for Smart India Hackathon SIH and Smart Gujarat Hackathon SGH.
3. Conducted e-Hackathon in 2021 at Indus University.
- 4.. Conducted Internal hackathon SIH 2022 at Indus University.

#### **WEBINAR ORGANIZED:**

1. Webinar on “Thinking Gender in Covid Times.” under WDC.
2. Webinar on “Energy Audit & Energy Management.”
3. Webinar on “Emotional Intelligence & The art of Neuro Balancing.” under WDC.
4. Webinar on “Changing roles of Engineers Due to Rapid Developments in Technology.”
5. Webinar on “Health is Wealth.” under WDC.
6. Webinar on “Women Empowerment” under WDC.
7. Webinar on “Financial Planning for Women.” under WDC.
8. Webinar on “Nutrition Guidelines for Covid-19.” under WDC.

#### **RESEARCH PUBLICATIONS:**

1. CMC(Cascaded Multilevel) controller for STATCOM , Journal of energy and power (USA) 2010.
2. Controller for STATCOM Recent trends in power systems, V.V.Nagar, 2010
3. Influencing Factors for Short term load forecasting, NCEETM-15, 2015.
4. Doubly fed induction generator for WECS NCEETM-15, 2015.
5. Effect of excitation system on power system stability NCEETM-15, 2015.
6. STLF based on influencing factors using ANN IJMTER ISSN: 2349-9745 ISSN: 2393-8161 Impact factor 1.7, Volume 2, Issue 7, July 2015.
7. Short term load forecasting techniques using Artificial neural network IJEDR ISSN: 2321-9939 Impact Factor- 3.97 2015.
8. Load pattern analysis & methodology for STLF NOBCON-16 ,2016.

9. Impact of temperature over the output of solar PV power Generation: case study at SAC-ISRO, Ahmedabad. International journal of science & Engineering Development ISSN: 2455-2631 Impact Factor – 2.87 Volume 1, Issue 5, May 2016.
10. Optimal coordination techniques for directional over current relay. International journal of Advanced Research in science, Engineering and Technology. ISSN: 2350-0328, online peer reviewed online, Impact Factor: 3.04 Vol. 3, Issue 5, May 2016 International 2016.
11. A review on grid power quality improvement in wind energy system using STATCOM with BESS International journal of Advanced Research in science, Engineering and Technology. ISSN: 2350-0328, online peer reviewed online, Impact Factor: 3.04 Volume 5, Issue 6, June 2016.
12. Ultrasonic technique to reduce the accident. International journal of combined research & Development. ISSN:2321-2241, Volume: 5; Issue: 9; September -2016.
13. Short term Load forecasting using Neuro-Fuzzy IJSRD/Conf/ETCO20 17, April 2017, page 1-5 International 2017.
14. MODBUS protocol for reading Parameter of AC Drive International journal in recent and innovation trends in commuting and communication. ISSN: 2321-8169 Impact factor 5.83, volume 5, Issue 3 Page 185-187 2017
15. Short Term Load Forecasting: One Week (With & Without Weekend) Using Artificial Neural Network for SLDC of Gujarat International Journal of Latest Technology in Engineering, Management & Applied Science (IJLTEMAS) Volume VI, Issue II, February 2017 ISSN 2278-2540 Impact Factor: 3.475 International 2017.
16. Short Term Load Forecasting: Individual Day Load Pattern using Artificial Neural Network for SLDC of Gujarat SSRG International Journal of Electrical and Electronics Engineering (SSRG-IJEEE) – volume 3 Issue 12– December 2016, Impact factor – 1.032 International 2016.
17. Short term load forecasting using Artificial Neural Network NOBCON-17 National 2017 (Best Paper).
18. Short term load forecasting using ANFIS International journal of advance research in engineering science and technology. Volume 4, Issue 4, April 2017
19. Short Term Load Forecasting Model for UGVCL, MGVCL, DGVCL and PGVCL using ANN International Journal of Recent Trends in Electrical & Electronics Engg., August, 2017.

20. ANN and ANFIS for Short Term Load Forecasting, Engineering Technology and Applied Science Research ISSN: 2241-4487 2018.
21. Short term load forecasting using adaptive neuro fuzzy interface system International journal of application or innovation in Engineering and management. International 2018
22. Power System Analysis of 66/11 kV Distribution Journal of Emerging Technology and Innovative Research, ISSN 2349-5162 International 2019.
23. Testing of Distribution Transformer Journal of Emerging Technology and Innovative Research, ISSN 2349-5162 International 2019.
24. Design and testing of power transformer Journal of Emerging Technology and Innovative Research, ISSN 2349-5162 International 2019.
25. Test on power Transformer Journal of Emerging Technology and Innovative Research, ISSN 2349-5162 International 2019.
26. Smart feeder monitoring system. Compliance engineering journal, ISSN 0898-3577 International 2020.
27. Design of 50 MW grid connected solar power plant. International journal of Engineering Research & Technology. ISSN: 2278-0181 2020
28. Design of APFC panel for Industrial Application. International Journal of Engineering research & Technology ISSN: 2278-018, 2020
29. Electrical Installation of a multi-storey building. Compliance engineering journal, ISSN 0898-3577, 2020.
30. Optimal Unit Commitment Solution with renewable sources using dynamic Programming. Compliance engineering journal, ISSN 0898-3577, 2020.
31. A Review of Congestion Management Address in Reorient Power System. Juni Khyat, Vol 11, Issue 11, ISSN:2278-4632, 2021
32. Congestion Management with Optimization Techniques in Power System. Design Engineering, ISSN: 0011-9342, Issue:8, Pages 16627-16635, 2021.
33. A review on new protection scheme for transmission lines utilizing positive sequence fault components. International Journal of food and nutritional science, Volume 11, ISSN: 2319-1775, 2022.
34. An analysis and Comparative Evaluation of reduced switch count multilevel Inverter topologies. Stochastic Modeling & Applications, Vol-26, ISSN: 0972-3641, 2022.

35. Impact of EV chargers on Power System: A Review International conference on science, Engineering and Technology ICSET 2022. ISBN: 978-81-959326-0-3.
36. Electrical Design Analysis and Implementation for commercial buildings. ISTE Faculty Convection 2022 & GESST
37. The comparison of THD between PWM, Selective harmonic elimination newton raphson method and artificial neural network in proposed 7 level reduced switched multilevel Inverter. European Chemical Bulletin.
38. Elimination of lower order harmonics in modified reduced switched 7 level multilevel Inverter using Artificial Neural Network under science technology and society theme of BVS 2023.
39. Fault detection and location based SVM for three phase transmission lines applying positive sequence fault components. Transdisciplinary Journal of Engineering & Science, volume 14. <https://doi.org/10.22545/2023/00234>

#### **INVITED TALK/ SESSION CHAIR:**

1. Expert session delivered on “Artificial Intelligence.” under Student Innovation Fest-2022 organized by Vigyan Gurjari.
2. Expert Session delivered on “Economic Load Dispatch.” at Amiraj College of Engineering.
3. Expert Session delivered in Short-Term Training Program “Applications of Artificial Intelligence Techniques in Electrical Machines and Power System” during 27/6/2022 to 1/7/2022 sponsored by GUJCOST-DST Gandhinagar, organized by Electrical Engineering Department of VGEC CHANDKHEDA. Delivered a session on "Artificial Neural network and Adaptive Neuro Fuzzy Inference system" 2022.
4. Expert session delivered in Faculty Development Program on “AI: ANN and ANFIS” at ITM University, Baroda.
5. Expert session delivered on “Artificial Intelligence and how to use MATLAB for AI.” in workshop on MATLAB applications organized by Indus University.
6. Expert session delivered in GUJCOST sponsored STTP on Recent Trends in Power System “Application of Artificial Intelligence in Electrical Power System.”
7. Expert session delivered in certification course on Energy Management “Key thrust areas of Energy Conservation Act and Energy Management” at Indus University.



8. Session chair of National level Engineering conference organized under Gujarat Vigyan Sammelan GVS - 2022.
9. Session Chair of Conference on “Global Exigencies for Smart & Sustainable Technologies April 2023 organized under 26<sup>th</sup> ISTE Gujarat State Annual Faculty Convention.
10. Session Chair of Conference on Green Energy Green Future organized by Bhartiya Vigyan Sammelan December 2023.
11. Session chair of conference on Innovation and Technology for Public Safety organized by Bhartiya Vigyan Sammelan December 2023.

### **RESEARCH:**

Dr Sweta Shah is a passionate researcher in Electrical Engineering domain on Power System, Load Forecasting, Economic Load Dispatch, Power System Planning, Power System Analysis, Power System Protection and Artificial Intelligence. She develop Artificial Intelligence based model for short term load forecasting on MGVCL data. She works on application of neural network and ANFIS for power system planning. She published more than 30 papers in national and international conference and journals on short term load forecasting, application of artificial intelligence, power system analysis, transformer testing, cascaded multi level converter and Power system protection. Currently she is guiding 6 research scholars in the field of electrical engineering.

### **ADMINISTRATION:**

Dr. Sweta Shah is an academican, researcher and academic administrator over 20 years.

Earlier she has worked with Torrent Power Ahmedabad and Ahmedabad Institute of Technology. She has served as Head of Electrical Engineering Department at Ahmedabad Institute of Technology since 2005 to 2014.

As a head, she develops various electrical laboratories like Electrical Measurement, Electrical Machines, High Voltage, Power System Protection etc. She proposed to start PG Program on Electrical Power System at Ahmedabad Institute of Technology and successfully started in 2014.

She also work as GTU zonal Coordinator till 2014.

She was appointed as member of LIC committee, 2014.

She conducts BOS meeting for UG as well as PG courses as a Chairman during 2014-2016 for up gradation of academics at INDUS University.

Chair person of WDC at Indus University.

**Appointed as OSD Research in 2020 to handle PhD Program at Indus University.**

### **PROFESSIONAL SUPERVISION:**

Dr. Sweta Shah has served as lead Guest editor in American Journal of Electrical Power and Energy Systems, USA

Reviewer in IEEE power and Energy System

Reviewer in American Journal of Electrical Power and Energy Systems, USA

Reviewer in Journal of Emerging Technologies and Innovative Research,

Franklin member of London Journal of Engineering Research

Member of international association of Engineering and Technology.

Life member of Society of Power Engineers (I)

Executive committee member of SPE Ahmedabad Chapter.

Chair person of Academic committee SPE Ahmedabad chapter.

Life Member of Vigyan Gurjari.

Joint secretary Vigyan Gurjari, Karnavati-Gandhinagar unit.

Reviewer in AICTE Scheme for translating Technical books in regional language.

Scrutiny member for Vikram Sarabhai Award for Best PhD Thesis 2022.

Scrutiny member for Gujarat Vigyan Sammelan 2022 organized by Vigyan Gurjari, Govt. Of Gujarat.

Appointed as a mentor from VIBHA for Space India Hackathon under IISF 2023.

Appointed as a Co-convener of Bhartiya Vigyan Sammelan BVS -2023 conference.