SHWETA SINGH
Email: shwetasingh580@gmail.com
Mobile: +91-6393749262,
Permanent Address: 49-m, Indra Nagar Rashulpur, Post- New Shivpuri Colony, Gorakhpur

WORK EXPERIENCE:

- Working as "Assistant Professor" in "Maharishi University of Information Technology", Lucknow, from April-2021 in Electrical Engineering Department.
- Working as "Head of Electrical Engineering Department" in "Maharishi University of Information Technology", Lucknow, from August-2021 in Electrical Engineering Department.
- Working as "Placement Coordinator" in "School of Engineering Technology" in MUIT, Lucknow, from August-2021.

EDUCATION:

Ph.D. (Power Electronic and Drives) **2015-2020**

Department of Electrical Engineering, MMMUT, Gorakhpur, India.

- Supervisor: Prof. A.N. Tiwari and Prof. S.N. Singh
- Thesis Title: "Improvements and Performance Analysis of PMSM Drive".
- Overall Percentage: 75 % (Course-Work)
- Date of Thesis Submission : 19th December 2019
- Date of Ph.D. Oral Thesis Defense Examination: 14th Feb 2020
- Date of Ph.D. Awarded : 9th Feb 2021

M. Tech. (Control System) **2013-2015**

Department of Electrical Engineering, Amity University, Noida, India.

- Supervisor: Dr. Neeli Satyanarayana.
- Thesis Title: "Discrete-Time Reduced Order Observers for Descriptor Systems".
- Overall CGPA:7.99/10

B.Tech. (Electrical Engineering) **2008-2012**

Department of Electrical Engineering, G.L. Bajaj Institute of Technology and Management, Greater Noida (GBTU), India.

- Thesis Title: "Scalar Control of Induction Motor"
- Percentage : 68%

FIELDS OF INTEREST:

- Control System, Power Electronic & Drives, PMSM Drives, Observer design and Sensor less Drives.

SKILLS:

- Programming Languages: **MATLAB (**Control Toolbox, Simpower Toolbox), Basic of C.

INDUSTRIAL TRAINING:

- Summer training from "Cetpa InfoTech Pvt. Ltd." on "Speed Control of D.C. Motor Using PID and Fuzzy logic" during 2nd semester for 6 week in 2014.
- Summer training from " N.E. Railways, Gorakhpur" on " Railway Signaling and Signal Workshop Project'' during 3rd year for one month in 2010.

CONFERENCES:

[1] **Shweta Singh** and A.N. Tiwari, "A Comparative Study of Model Predictive Control and Sliding Mode Observer for PMSM: A Review", National Conference on Electrical Power Technology Management and IT Applications, 2016.

[2] **S. Singh** and A. N. Tiwari, "Various techniques of sensorless speed control of PMSM: A review," *2017 Second International Conference on Electrical, Computer and Communication Technologies (ICECCT)*, Coimbatore, 2017, pp. 1-6, doi: 10.1109/ICECCT.2017.8117995.

[3] **S. Singh** and A. N. Tiwari, "Analysis and simulation of vector controlled PMSM drive using SVPWM inverter," *2017 2nd International Conference for Convergence In Technology (I2CT)*, Mumbai, 2017, pp. 709-714, doi: 10.1109/I2CT.2017.8226221.

[4] **S. Singh,** A. N. Tiwari and S. N. Singh, "Sensor less Speed Estimation of PM Synchronous Motor Drive using MRAS," *2017 IEEE International WIE Conference on Electrical and Computer Engineering (WIECON-ECE)*, Dehradun, 2017, pp. 35-38, doi: 10.1109/WIECON-ECE.2017.8468912.

[5] **Shweta Singh,** A.N. Tiwari, and S.N. Singh, "Model Predictive Control and Sliding Mode Control for PMSM Drive: A Review'' *National Conference on Recent Advances in Electrical and Electronics Engineering (RAEEE-2018)*, MMMUT Gorakhpur (U.P.), India, March 16-17, 2018.

[6] **S. Singh** and A. Anvari-Moghaddam, "Sensor-based and Sensor less Vector Control of PM Synchronous Motor Drives: A Comparative Study," *2018 IEEE 4th Southern Power Electronics Conference (SPEC)*, Singapore, Singapore, 2018, pp. 1-6, doi: 10.1109/SPEC.2018.8635927.

[7] **S. Singh**, A. N. Tiwari and S. N. Singh, "Performance of Sensorless Method for PMSM Drive," *2018 8th IEEE India International Conference on Power Electronics (IICPE)*, JAIPUR, India, 2018, pp. 1-5, doi: 10.1109/IICPE.2018.8709556.

INTERNATIONAL JOURNAL:

[1] **Shweta Singh** and Aradhana Singh, "Magnetic Levitation Methods and Modeling in Maglev Trains" International Journal of Advanced Research in Computer Science and Software Engineering, Volume 4, Issue 9, September2014.

[2] Malvika Chauhan, Upendra Joshi, Protim Paul, **Shweta Singh**, "Design and Analysis of 4.30 KW Buck Converter" International Journal of Advance Research in Science And Engineering, Volume 3, Issue 9, September2014.

[3] **Shweta Singh** "Discrete-time Reduced Order Observers for Descriptor System" Imperial Journal of Interdisciplinary Research, Volume 2, Issue 12, 2016.

[4] **Shweta Singh,** A.N. Tiwari, and S.N. Singh "Model Reference Adaptive System for Speed and Position Sensorless Control of PMSM'' International Journal of Applied EngineeringResearch(2018),Vol.13,No.7,pp.47254729.https://www.ripublication.com/ijaer18/ijaerv13n7_17.**(**SCI-Mago**)**

[5] **Shweta Singh** and A.N. Tiwari, "Simulation and Comparison of SPWM and SVPWM Control for Two Level Inverter'', International Journal of Computing and Applications,Vol.13,No.2,(2018),pp.267273.https://serialsjournals.com/abstract/44062ch35f-491-shweta_singh.pdf (UGC approved journal)

[6] **Shweta Singh*,** Amar Nath Tiwari and Sri Niwas Singh, "Speed and Position Estimation for Sensorless Control of PMSM: A Critical Review", Recent Advances in Electrical & Electronic Engineering (2019) 12:1 .https://doi.org/10.2174/2352096512666191021110613 (SCI + SCIMago).

[7] **Shweta Singh*,** A.N. Tiwari and Sri N. Singh, "Performance Analysis of Sensor based and Sensorless Methods for PMSM Drive", Recent Advances in Electrical & ElectronicsEngg(2020) 13:304 https://doi.org/10.2174/2352096512666190311162605 (SCI,SCIMago).

[8] **Shweta Singh*,** Amar N. Tiwari and Sri N. Singh, "Sensor-based and Sensorless Vector Control of Permanent Magnet Synchronous Motor Drives: A Comparative Study", Recent Advances in Electrical & Electronic Engineering (2020) 13: 276. https://doi.org/10.2174/2352096511666180724104302(SCI,SCIMago).

[9] **Singh, S**., Tiwari, A.N. and Singh, S.N., "Performance evaluation of MRAS and SMO based sensorless PMSM drives", World Journal of Engineering (2020), Vol. 17, No. 3, pp. 347-355.https://doi.org/10.1108/WJE-07-2019-0208 (SCI,SCIMago).

WORKSHOPS/ SHORT-TERM COURSE:

[1] Short Term Course on "Mathematical Method in Science & Technology", Madan Mohan Malaviya University of Technology, Gorakhpur, from 15-19 December 2015, organized by Department of Applied Science.

[2] Short Term Course on "VLSI Design", Madan Mohan Malaviya University of Technology, Gorakhpur, from 5-9 October 2015, organized by Department of Electronic Engineering.

[3] Workshop on "Recent Advances in Electrical Engineering Laboratories (RAEEL-2015)" at Madan Mohan Malaviya University of Technology, Gorakhpur on 2nd December, 2015.

[4] Short Term Course on "Advances in Computing Technology", Madan Mohan Malaviya University of Technology, Gorakhpur, from 3-9 July 2016, organized by Department of Computer Science & Engineering.

[5] Workshop on "Linear Integrated Circuits: A Systems Approach" at Madan Mohan Malaviya University of Technology, Gorakhpur in collaboration with Sapience Consulting, under the Texas Instruments India University Program from 7-9 June, 2016.

[6] Short Term Course on “Recent Advances in Electrical Systems & Renewable Energy”, Madan Mohan Malaviya University of Technology, Gorakhpur, from 1st-7th August 2016, organized by Department of Electrical Engineering.

[7] National Workshop on "Networked and Embedded Control of Energy & Systems (NECES-2016)" at Department of Electrical Engineering, MNNIT Allahabad from 14-15 October, 2016.

[8] Workshop on "Latex for Research" at Madan Mohan Malaviya University of Technology, Gorakhpur from 12-14 December, 2016.

[9] Short Term Course On “Recent advances in control & energy systems (RACES-2017)” Madan Mohan Malaviya University of Technology, Gorakhpur, from 25 Feb - 03 March, 2017, organized by Department of Electrical Engineering.

[10] Short Term Course On “Emerging Trends in Smart Grid & Optimization Techniques (ETSGOT-2018)” Madan Mohan Malaviya University of Technology, Gorakhpur, from Sept 11-16, 2018, organized by Department of Electrical Engineering.

[11] International Workshop on "Energy Management in Smart Sustainable Cities (EMSSC - 2019)" at Madan Mohan Malaviya University of Technology, Gorakhpur, from 30th November-1st December, 2019, organized by Department of Electrical Engineering.

[12] Short Term Training Programme on “Thesis and Research paper Writing” organized by National Institute of Technical Teachers Training and Research, Kolkata from 6th December to 10th December, 2021.

[13] Short Term Training Programme on “Application of MATLAB, Control System, Image Processing and Fuzzy Logic Tool box” organized by National Institute of Technical Teachers Training and Research, Kolkata from 27th December to 31th December, 2021.

FACULTY DEVELOPMENT PROGRAMME:

- Faculty Development Program attended on "Capacity Building for Effective Online Teaching & E-Content" from 2 - 7 September, 2021, organized by Maharishi University of Information Technology.
- FDP attended on "Advances in Control Systems and Sensor Technologies", scheduled from 27 Nov- 01 Dec 2021
- FDP attended on “Recent Advances in Control Systems-2021", scheduled from 18 Oct-22 Oct 2021.
- FDP attended on “Nonlinear Systems: Dynamics and Control” from 13/12/2021 to 17/12/2021 at Government Engineering College.
- FDP attended on “Recent Trends of Emerging Research Advances in Design Aspects and Innovative Modeling Techniques with Miniaturization for Electronics Devices and Circuits” from 24/01/2022 to 28/01/2022 at Engineering Degree Division, Institute of Engineering and Rural Technology, Prayagraj.

SUBJECTS OF INTEREST:

Control System, Electrical Measurements and Measuring Instruments, Energy Conservation

PROFESSIONAL RECOGNITION/AWARDS, MEMBERSHIPS

- Achieved "Young Researcher Award 2022" by Institute of Scholars (InSc), Bangalore.
- Life time InSc Professional Membership (LMINSC), recognized in 2022.
- Reviewer for INSC international Journal under the stream of Electrical and Electronic Engineering recognized in 2022.

EXTRACURRICULAR ACTIVITIES:

- Participated in Malavia Research Conclave-2017, MMMUT, Gorakhpur.
- Poster Presented on "Sensorless Control of PMSM Drives," Malavia ResearchConclave-2017, MMMUT, Gorakhpur
- Poster Presented on "Sensorless Vector Control of PMSM Drives," Malavia ResearchConclave-2018, MMMUT, Gorakhpur.
- Poster Presented on "Sensorless Vector Control of PMSM Drives," Malavia Research Conclave-2019, MMMUT, Gorakhpur.
- Got honors of "BEST TRAINEE" during Summer Internship 2014.
- Organized Training Workshop on "English Communication Skills" on 29 Oct 2021.
- Reviewer of "IEEE Transactions on Industrial Informatics journal" SCI journal.
- Reviewer of "Institute of Electrical and Electronics Engineers Inc." SCI journal.
- Reviewer of "IEEE Journal on Emerging and Selected Topics in Circuits and Systems" SCI journal.

REFERENCES:

- Prof. A.N. Tiwari, Department of Electrical Engineering MMM University of Technology Gorakhpur-273010, India Email: antiwari2012@gmail.com

- Prof. S.N. Singh Professor (HAG), Department of Electrical Engineering, Indian Institute of Technology, Kanpur (UP) - 208016, INDIA Tel: +91-512-7009, Email: snsingh@iitk.ac.in, snsingh93@gmail.com