

Brief Biodata

Name: Dr. Avni Khatkar

Designation:	Scientist	
DP No. and Name:	D#6.02, LF & HF Voltage, Current and Microwave Metrology	
DU No. and Name:	D#6.0, Indian Standard Time	
Email:	avni.khatkar@nplindia.org	
Date of Joining CSIR-NPL:	14-10-2020	
Phone (office)	011-45609312	

Research Area/ Interest

- LF & HF Voltage, Current and Microwave Metrology.
- Smart Grid Technology and applications.
- Wide Area Monitoring, Protection, and Control
- Security Techniques and QoS analysis in IEEE 802.16
- Optoelectronic investigation of nano materials.

Educational Qualifications

(Please write latest qualification first)

Degree	Subject	University/ Institute	Year
Ph.D.	Electronics and Communication	University Institute of Engineering and Technology (UIET), Maharshi Dayanand University, Rohtak	2017
M.Tech.(Gold Medal)	Electronics and Communication	University Institute of Engineering and Technology (UIET), Maharshi Dayanand University, Rohtak	2013
B.Tech. (Honours.)	Electronics and Communication	University Institute of Engineering and Technology (UIET), Maharshi Dayanand University, Rohtak	2011

Academic / Research Experience

Grade / Post	Institute	Duration		Research Field
		From	To	
Scientist	CSIR-NPL, New Delhi	14-10-2020	Present	LF & HF Voltage, Current and Microwave Metrology.

Instructor (Tech.)	Interglobe Aviation, Gurugram	01-05-2018	28-10-2019	
Assistant Professor	DPGITM, Gurgaon	01-08-2017	30-04-2018	
Assistant Professor	MRIEM, Rohtak	31-01-2015	01-08-2017	
Assistant Professor	PDMCE, Bahadurgarh	29-07-2013	31-01-2015	

No. of Publications

No. of Publications in SCI Journals	No. of Publications in non-SCI Journals	No. of Publications in Conference Proceedings	Books	Total
46	14	19	-	79

Selected Publications

1. Long-Term Stability Analysis for Measurement Class of Phasor Measurement Unit at CSIR-NPL, Avni Khatkar, Swati Kumari, Archana Sahu, Sunidhi Luthra, Saood Ahmad, *MAPAN* (2022).
2. Structural and Optoelectronic Investigation of Combustion-Derived Ba₂Zn₂La₄O₁₀:Er³⁺ Green Emitters for n-UV-Based White LEDs, Sushma Devi, Avni Khatkar, VB Taxak, Anju Hooda, SP Khatkar, *J. Electron. Mater.* **51**, 3637–3649 (2022).
3. Structural, optical and morphological features of combustion derived Ba₃Y₄O₉:Dy³⁺ nanocrystalline phosphor with white light emission, Anju Hooda, Avni Khatkar, Priti Boora, Sonika Singh, Sushma Devi, SP Khatkar, VB Taxak, *Optik*, **228**, 166176 (2021).
4. Ba₂YV₃O₁₁:Eu³⁺–Density functional and experimental analysis of crystal, electronic and optical properties. Jyoti Dalal, Avni Khatkar, Mandeep Dalal, Sangeeta Chahar, Priya Phogat, V.B.Taxak, S.P.Khatkar, *J. of Alloys & Compounds*, **821**, 153471 (2020).
5. Investigation of Security Issues in WiMAX Networks, Avni Khatkar, Yudhvir Singh, Raj Kumar *International Journal for Innovative Research In Multidisciplinary Field*, vol. 2, issue 7, pp.133-137, Jul 2016.
6. Avni Khatkar, “Analysis of impact of speed on rtPS, nrtPS and ertPS flows in WiMAX networks”, 103rd Indian Science Congress Association, University of Mysore, Mysore on January 3-7, 2016. (ISCA Best Poster Award).
7. Avni Khatkar, Yudhvir Singh, “Performance Evaluation of Hybrid Routing Protocols in Mobile Adhoc Networks”, *Proceedings of IEEE, 2nd International Conference on Advanced Computing & Communication Technologies (ACCT-12)*, pp. 542-545, 7-8 Jan. 2012. (Awarded Best Paper Award).

Patents

Nil

Current Activities

(Not more than 100 words)

To establish, maintain and upgrade national standards of Phasor Measurement Unit Calibration (PMU-CAL) System, Microwave Power and HF Voltage parameters that are internationally accepted and disseminating the traceability to power industry, government, strategic sectors and academia as per the ISO/IEC-17025:2017, including establishment of international compatibility and mutual equivalence through intercomparisons as per our quality policy.

Honour(s)/Award(s)/ Fellowship(s)

- LPS Bossard Scholarship in B.Tech Final year.
- 2nd Position in The Annual All India Essay Writing Event of 2009 in UG/PG level.
- Best Paper Award in 2nd International Conference ACCT-12.
- Best Project Award in Workshop on Innovations in Electrical Power Systems on 14th March, 2012 held at U.I.E.T. M.D.U. Rohtak
- Second in Critical Reasoning in 10th Techno Management festival, Rage 2012.
- Second in Best Project Idea in 11th Techno Management fest, Spark 2013.
- First in Technical Paper Presentation in 11th Techno Management fest, Spark 2013.
- Best Paper Presenter Award in National Conference SPET 2014.
- Best Oral Presentation Award in National Conference on Science and Technology for Human Development, held at Gurukul Kangri Vishwavidyalaya, Haridwar, 2015.
- ISCA Best Poster Award of The Indian Science Congress Association, Kolkata in the Section of Engineering Sciences, 2016.

Contributions to AcSIR

Membership of Professional Societies/ Institutions

- Life Member, Indian Science Congress Association.
- Life Member, Metrology Society of India.
- Member, International Association of Engineers.

Any other Information

(Not more than 100 words)

- GATE and UGC-NET Qualified.
- Member Stage Comparing committee, Science Conclave 2011, Interactions of Innovative Young Minds with Eminent Scientists held at MDU, Rohtak during 2-3 Dec 2011.
- Member Stage Comparing committee, Science Conclave 2014, Interactive meet of young minds with science icons held at MDU, Rohtak during 22-23 Feb 2014.

- Elected as a Member of the Sectional Committee of the Section of Engineering Sciences for 2016-17 (104th Session of the Indian Science Congress).
- NCC C Certificate.
- NSS Merit Certificate.
- Completed Online Training Programme on “ISO/IEC 17025:2017 -General Requirements for the Competence of Testing and Calibration Laboratories” from February 08-11, 2021