

Somaiya Vidyavihar University

Name: Dr. Archana Sharma			E-mail: archana.sharma@somaiya.edu		
Contact No: 7738610002					
Department/Section: Sciences and Humanities					
College: K J Somaiya College of Engineering					
DOJ Somaiya: 01 st July, 2014		Career Experience: 10 Yrs		Industry Experience: 0 Yrs	
Teaching Experience: 10 Yrs			Present Academic Designation: Assistant Professor		
Present Administrative Designation: NA (Principal/Vice-Principal/ Associate Dean/ HOD etc)					

Area of research/specialization and Courses Delivered
<p>Research domain/interests/areas</p> <ol style="list-style-type: none"> 1. Semiconductor nanoparticles: Structural and Optical properties 2. Magnetic nanoparticles <p>Courses Delivered</p> <ol style="list-style-type: none"> 1. Applied Physics I & II 2. Engineering Physics

Recognition as a teacher by any University	UG: Yes/No	PG: Yes/No	Ph.D : Yes/No
<p>Details of Recognitions</p> <ol style="list-style-type: none"> 1. Ph D Guide (SVU University) 			

Education					
Examination	Name of the Degree	University/Board	Institute/College	Year	CPI/SPI/ %Marks
Ph.D	Ph. D	I.I.T Bombay	I.I.T Bombay	2013	7.6
B.Ed	B.Ed	Barkatullah University	Barkatullah University	2007	70
PG	M.Sc (Physics)	D.A.V.V	D.A.V.V, Indore	2003	8.6
UG	B. Sc (P.C.M)	D.A.V.V	Holkar Science College, Indore	2001	73

Notable Experience Details					
Sr. No	Name of the organization	Designation	Date of Joining	Date of Leaving	Experience (Years)
1.	K. J. Somaiya College of Engineering	Assistant Professor	July 1 st , 2014	Till date	9 years
2.	Saraswati College of Engineering	Assistant Professor	July 5 th , 2013	June 4 th , 2014	1 year

Research Accomplishments and Projects		
No of students pursuing Ph.D as on date: -		No of students completed Ph.D as on date: -
No of students completed PG thesis / Project work as on date: -		No of students / groups completed UG projects as on date: -
Publications Total: 4	Number of Peer review Journal papers: 4	Number of Conference papers: 8
Details of Publications:		

Somaiya Vidyavihar University

International Journals

1. A study of structural parameters and photoluminescence of Tb doped ZnO nanoparticles”, A. Sharma, V. N. Rai, S. Mani, S. Chawade, Materials Today: Proceedings, Volume 26, Part 1, 2020, Pages 58-63; DOI: 10.1016/j.matpr.2019.05.377.
2. Study of structural and surface morphological properties of Tb doped ZnO nanoparticles using XRD, XPS and fractal analysis”, Anil Kumar ,A Sharma, Savita Bhasker ,R P Yadav ,H P Bhasker, P K Priya, K L Pandey, Satish Kumar Mandal, R K Anand, Mater. Res. Express Vol. 6 p. no. 115039 (2019).

National Journals

3. **Effect of Ferroelectric Nanopowder on Electrical and Acoustical Properties of Cholesteric Liquid Crystal”** S. Mani, M. Pradhan, A. Sharma, S. Hadkar, K. Mishra, J. Amare, P. Sarawade, Non-Metallic Material Science, Volume 02, Issue 01st April 2020.
4. Developing Analytical and Observational Approach in Undergraduate Learners”, S. S. Patwardhan, A. Sharma, S. A. Mani, S. R. Chawade, Journal of Engineering Education Transformations, Volume 33, January **2020**, Special issue, eISSN 2394-1707.

Conferences

1. International conference of Emergent techniques and functional materials held at MediCaps University, Indore from 12th July-14th July, 2022.(Oral)
2. 3rd International conference on Emerging trends in Engineering and technology (ICETE-2022) held at Sandip Institute of Engineering and Management, Nashik from 21st July-22nd July, 2022. (Oral)
3. National conference on Recent trends in Photonics, Smart and Nanomaterials held at Birla College of Arts, Science and Commerce, Kalyan (W) on 21st Feb, 2019. (Poster)
4. National conference on Physics and Chemistry of Materials (NCPCM-2018) held at DAVV, Indore from 27th-28th Dec. 2018. (Poster presentation)
5. 2nd International Conference on Nanoscience and Engineering Applications (ICONSEA-2018) held at JNTU, Hyderabad, Telangana from 4th-6th Oct. 2018. (Oral presentation)
6. International conference on Nanotechnology for human welfare (ICNHW 2018) held at H. V. Desai College, Pune from 1-3rd Feb, 2018. (Poster presentation)
7. National conference on Recent advances in Chemical sciences (NCRACS-2016) held at MMU University, Haryana from 11th -12th Nov. 2016. (Poster presentation)
8. National Conference on Advanced Materials and Applications (NCAMA-2016) held at Department of Physics, Fergusson College, Pune from 4th-5th March, 2016. (Oral presentation)

Books/Book Chapters

1. **“Design, Characterization and Applications of Photoacoustic Cells and Spectrometer”** Ch. 5 in Book entitled Photoacoustic and Photo-thermal Spectroscopy: Principles and Applications by Elsevier Publications (in Press, Expected 1st Edition in September 2022)
2. **“Unravelling the Effect of Tb on the Surface Defects in ZnO Nanoparticles”** by A. Sharma, V. N. Rai, Ch. 7, Advanced Aspects of Engineering Vol. 5, May 2021, ISBN: ISBN: 978-93-90888-40-5.

Patents/Copy Rights: NA

No of Research / consultancy / projects completed: 2 Rs: <u>70, 000</u>	No of Research / consultancy / projects on-going: Nil Rs: <u> </u>	No of Research / consultancy / projects on applied as on date: Nil Rs: <u> </u>
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Details of Research / consultancy / projects: 2 (Co-PI)

Completed

1. Identification and microscopic classification of micro plastics in beach sediment sample at Dadar. Role as a Co-PI (MU minor research Project 2021-22).

Somaiya Vidyavihar University

2. Thermal and optical characterization of Quantum dots dispersed in Liquid Crystals System. Role as a Co-PI (MU minor research project: 2017-18).

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FDPs/Seminars/Workshops/Training Programs Attended/ Organized/ Delivered

Attended

1. MS-DEED Level 1 workshop on “Introduction to Pedagogies for Science and Mathematics undergraduate teachers” organized by IISER Pune & MSFDA from July 27th-July 28th, 2022.
2. One-day Seminar on National Conference on National Educational Policy 2020 Implementation in Maharashtra: Opportunities and Challenges organized by PERA, Pune and SVU, Mumbai on March 30th, 2022.
3. National e-conference on Advanced materials and applications (AMA-2021) organized by Maharshi Parshuram college of Engineering on 23rd October, 2021.
4. Online NPTEL Course on “Biomedical Nanotechnology” organized by IIT Roorkee from 23rd August, 2021- 17th September, 2021.
5. Online NPTEL Course on “Chemistry and Physics of Surfaces and Interfaces” organized by IIT Madras from July 14th, 2021 to September 17th, 2021.
6. One week Online FDP on “ Strengthening Academic & Research Pursuit in the 21st Century” organized by Guru Angad Dev Teaching Learning Centre from 28th June- 4th July, 2021.
7. Online Workshop on “LOCF-Train the Trainers Learning outcome based Curriculum Framework” organized by Somaiya Vidyavihar University on 22nd April-23rd April, 2021.
8. Online QIP on “Fundamentals of corrosion Science and Technology” organized by IIT Indore held on September 9th-14th, 2020.
9. “International short course on Advanced Physics” (Online) organized by K J Somaiya College of Science and Commerce held on August 6th-8th, 2020.
10. Webinar on “Energy Efficient and Green Energy Technologies” organized by Indian Institute of Technology, Guwahati on 27th July 2020.
11. International webinar on “Materials synthesis and Characterization” organized by Avadh University and Florida Polytechnic University held on July 11th -13th, 2020.
12. One day e-conference on Perovskite Solar cells organized by Translational Perovskite Research Council held on June 30th, 2020.
13. Webinar on “Boost Research Navigation through RaX” organized by S K Somaiya College of Science and Commerce held on June 13th, 2020.
14. Webinar on “The Pedagogical Innovations of 21st century” organized by RBCOEM, Nagpur held on June 11th, 2020.
15. Faculty Development Programme on “Online Teaching and E-content” organised by Indian Institute of Digital Education on June 11th-12th, 2020.
16. Online training programme on “LaTEX for Everyone” organized by RAIT, Nerul from June 18th-20th, 2020.
17. NPTEL Course on “Sensors and Actuators” by IISc Bangalore from July 2019-October 2019 (12 weeks course).
18. NPTEL course on “Fundamentals of Solar Photovoltaics” by IIT Roorkee from July 2019-September 2019.
19. NPTEL online course on “Intellectual Property” by IIT- Madras from July. 2018-Oct. 2018 (12 weeks course).
20. NPTEL online course on “Structural Analysis of Nanoparticles” by IIT- Roorkee from July. 2018-Aug. 2018 (4 weeks course).
21. Pedagogy for Online and Blended Teaching-Learning Process (FDP201x) by IIT BombayX from Sept. 14th-Oct. 12th, 2017.
22. Online course on Physics of Semiconductors by Prof. H. C. Verma, IIT Kanpur from Aug. 15th-Nov. 20th, 2017.

Somaiya Vidyavihar University

23. Foundation program in ICT for Education (FDP101x) by IIT BombayX from Aug. 3rd-Sept. 7th, 2017.
24. STTP on “Sensor technology and Innovations” held at K. J. Somaiya College of Engineering, Mumbai from Dec. 4th-9th, 2017.
25. STTP on “Nanoscience and Nanotechnology: Fundamentals, Synthesis and Applications” held at Sardar Pater College of Engineering, Mumbai from Jan 2nd-6th, 2017.
26. QIP on “Modern Biophysical techniques” held at I.I.T Bombay from Dec. 15th-19th, 2016.
27. TEQIP on “Nanomaterials: Emerging trends” held at I.C.T Mumbai from Sept. 16th-17th, 2016.

Organized

1. Contributed as a mentor for the participating team in Medical device hackathon MEDHA (2022) stage 1 organized by BETiC, IIT Bombay and K J Somaiya College of Engineering from May 14th-May 28th, 2022.
2. Organized a training session on Impartus Lecture capturing solutions for the F Y BTech faculty.
3. Organized a Guest Lecture on Reference Management using Mendley by Prof. Rajesh Pansare on 30th March, 2022 (under Department Level R & D Committee).
4. Organized an Online webinar on Challenges, Innovations and Adaptations of COVID-19: Science and Society Perspectives in KJSCE from Oct. 29th-30th, 2021.
5. Organized 5 days STTP on Linear Algebra, Statistics and Mathematical Modelling: Hands On. in KJSCE from Jan 8th-12th, 2019.

Delivered

1. Oral presentation on International conference of Emergent techniques and functional materials held at MediCaps University, Indore from 12th July-14th July, 2022.
2. Oral presentation in 3rd International conference on Emerging trends in Engineering and technology (ICETE-2022) held at Sandip Institute of Engineering and Management, Nashik from 21st July-22nd July, 2022.
3. Oral presentation in 2nd International Conference on Nanoscience and Engineering Applications (ICONSEA-2018) held at JNTU, Hyderabad, Telangana from 4th-6th Oct. 2018.

Notable Key Scholastic Achievements

1.	Best research paper award for an oral presentation in 3 rd International conference on Emerging trends in Engineering and technology (ICETE-2022) held at Nashik from July 21 st -22 nd , 2022.
2.	Best Oral presentation in 2 nd International Conference on Nanoscience and Engineering Applications (ICONSEA-2018) held at JNTU, Hyderabad, Telangana from 4 th -6 th Oct. 2018.

Notable Positions and Responsibility

1.	Coordinator of Curriculum Design and Development committee
2.	Member of FY Subject In-charge committee
3.	Member of Infrastructure and write off committee
4.	Member of Departmental Academic committee
5.	Department Ph. D coordinator
6.	Course co-ordinator for Engineering Physics

Date: 07/ 02 /2023

**Signature of Faculty Member
(Dr. Archana Sharma)**