



MAHARAJA AGRASEN COLLEGE

University of Delhi

Vasundhara Enclave, Delhi 110096

Curriculum Vitae

First Name	Dr. Natasha	Middle Name		Last Name	
Designation	Associate Professor		Department	Electronics	
Date of Birth	13 th September 1964		Date of Joining	24 Dec. 2002	
Residential Address	10/ 8, Geeta Colony Delhi - 31				
Contact No.	9891446430		Email Id	natasha2du@gmail.com	

Educational Qualifications

Degree	Institution	Year	Details
B.Sc.(Hons) Physics	Hindu College University of Delhi.	1984	Physics
M.Sc Physics	University of Delhi	1986	Specialization in Electronics
M.Tech	IIT Delhi	1989	Applied Optics
Ph.D	Department of Electronics, University of Delhi	1998	Optoelectronics
Specialization	Optoelectronics		

Career Profile

Organization/ Institution	Post Held	Adhoc/ Temp/ Permanent	From	To	Total Experience
Maharaja Agrasen College, University of Delhi.	Lecturer	Adhoc	1998	2002	4 years
	Lecturer & senior Lecturer	Permanent	2002	2014	12 years
	Associate Professor	Permanent	2014	Till date	8 years



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List of research papers published in peer reviewed/ UGC Listed/ Scopus indexed research journals

Title of the article / paper	Journal Name	ISSN	Issue / Vol No.	Year	Whether Peer reviewed/ UGC Listed/ Scopus Indexed Journal	Thomson Reuter Impact Factor
Annexure A attached						

List of Books (edited/ authored)

Title of the book	Author / Editor	ISBN	Year	Publisher

List of Chapters in a book

Title of the chapter	Title of the book	ISBN	Year	Publisher

List of Papers presented/ Invited Lecture/ Resource Person in conferences/ seminars/ workshops/ FDPs

Title of Paper/ Talk/ Subject	Conference/ Invited talk/ Resource Person	Title of conference/ seminar/ workshop/ FDP	Level (College/ State/ National/ International)	Year	Name of Organizer(s)



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PhD Research Guidance

Name of the Scholar	Year of registration	Affiliating University	Status (Ongoing/ Thesis Submitted/ Awarded)
Dr. Neha Katyal	2005	Delhi University	Awarded
Dr. Swati Sharma	2012	Delhi University	Awarded

Research projects

Title	Period		Sanctioned Amount	Sponsoring/ Funding Agency
	From	To		

I certify that the information given above is correct and factual to the best of my knowledge.

Date:22/11/2022



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Annexure A

List of Publications: International/ National Journals

Natasha Birla & K. Singh, "Multistability in photorefractive transmission DFWM with orthogonally polarized pump: strong coupling regime", Atti Fondazione G. Ronchi (Italy) September 1992.

- Kanwal Kamra, Natasha Birla & K. Singh, "Erasure rate in photorefractive KnbO_3 induced by laser pulses" J. of Optics. 22 (1993) 43.
- Natasha Birla & A. Kapoor, "Optical Bistability in photorefractive nearly DFWM using orthogonally polarized pumps: transmission geometry", J. of Optics (Paris) 23 (1995) 193.
- Natasha Birla, K.N. Tripathi, A. Kapoor & A. Roy, "Phase conjugation by DFWM in PR media in the presence of biasing incoherent illumination: Effect of spatially varying input beams", Atti Della Fondazione Giorgio Ranchi 3(1996) 469
- Natasha Birla, A. Roy & A. Kapoor, "Cross polarized coupling in multigrating DFWM in compound semiconductor photorefractive crystals", Journal of Optik, 108/1 1998.
- Natasha Birla & A. Kapoor, "Angle dependent optical Bistability & multistability in photorefractive DFWM using orthogonally polarized pumps: transmission geometry", Atti Fondazione G. Ronchi (Italy) September-October (1998) 643.
- S. Malik, Natasha Birla & A. Kapoor, "Angle dependent Optical Bistability in NDFWM using photorefractives", Presented in International Conference on Photonics 1998 at IIT Delhi, Delhi.
- Neha Katyay, Natasha, A. Kapoor & A. Roy, "Effect of Optical Activity in Photorefractive two wave mixing", Presented in International Conference on Photonics 2008 organized by IIT Delhi, Delhi.
- "Analysis of output beam polarization in higher order self-diffraction via two wave mixing in BSO", Neha Katyay, Natasha, Amitava Roy, Avinashi Kapoor, Optik- IJLEO, Vol. 124, 2013, 8-12. ISSN: 0030-4026. Impact factor: 0.677
- 2. "Generalization of coupled wave equations by considering off-bragg diffraction in photorefractive BTO crystal", Neha Katyay, Natasha, Amitava Roy,



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Avinashi Kapoor, Journal of Optics (Springerlink), Vol. 41, 2012, 148-153. ISSN : 0972- 8821

- 3. "The influence of pump beam polarization on the signal beam in TWM in photorefractive crystals: transmission geometry", Neha Katyal, Natasha, Amitava Roy, Avinashi Kapoor, Optik-IJLEO, Vol. 122, 2011, 207-210. ISSN: 0030-4026. Impact factor: 0.677
- 4. Controlling the Direction of Energy Transfer for Higher - Order Self- Diffraction in Photorefractive Sillenites - a Numerical approach", Neha Katyal, Natasha, Avinashi Kapoor, Optik-IJLEO. Accepted on 24 August 2015. ISSN: 0030-4026. Impact factor: 0.677
- "Study and Analysis of P3OT-ZnS Hybrid Solar Cell", **Swati Sharma**, Natasha and A. Kapoor. Journal of renewable and Sustainable Energy 6, 023113 (2014)
- Exact Analytical Solution of Generation Real Solar Cells using Lambert W – function: A Review Article. **Swati Sharma** et. al. Invertis Journal of Renewable Energy, Vol. 4, No. 4, 2014 ; pp. 1-40
- . Effect of Yttrium doping on Structural and Optical Properties of Zinc Sulfide Nanoparticles” **Swati Sharma, Inderpreet Singh , Natasha and Avinashi Kapoor** . Materials Science in Semiconductor Processing, 56 , 2016, 174–178.
- . “Synthesis and Study of ZnS Nanoparticles for Photovoltaic Application” **Swati Sharma, Natasha, Avinashi Kapoor**. Advanced Science Letters, 22, 2016, 1059-1063.
- . “Synthesis and Characterization of Aluminium doped Zinc Sulfide Nanoparticles” **Swati Sharma, Inderpreet Singh, Natasha Chitkara and Avinashi Kapoor** (Communicated- Material Research Express)
- **International/ National Conferences**
- “Temperature Dependence of Structural, Physical and Optical Properties of ZnS nanoparticles by Chemical Method ” ,Indo-Canadian Symposium on Nano-Science and Technology, NIE, Mysore 2013 (Poster Presentation)
- “Effect of Aluminum and Yttrium Doping on Zinc Sulphide Nanoparticles” Swati Sharma , Jyoti Kashyap, Shubhra Gupta, Natasha and A. Kapoor. ICC 2015(30-31October 2016) , Govt. College of Engineering, Bikaner, Rajasthan, India AIP Conference Proceedings 1728, 020697 (2016)



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- “Study And Synthesis Of Aluminum Doped Zinc Sulphide Nanoparticles Using Co-precipitation Method”, Swati Sharma, Natasha, Avinashi Kapoor ICNM 2015(12-14 December 2015), Mathura, U.P. , India (Poster Presentation)
- “Synthesis and Characterization of Yttrium doped Zinc Sulphide Nanoparticle”, Swati Sharma, Natasha, Avinashi Kapoor ICRTMD 2015(15-17 December 2015), Amity University, Noida , U.P. India (Poster Presentation)