




**Shaheed Rajguru College of Applied Sciences for Women**  
**University of Delhi**  
**Faculty Profile**

<b>Name</b>	<b>Dr. Monika Tyagi</b>	
<b>Designation</b>	<b>Assistant Professor</b>	
<b>Email</b>	<b>monika.tyagi@rajguru.du.ac.in</b>	
<b>Degree</b>	<b>Institution</b>	<b>Year</b>
Ph.D. (Nanotechnology)	Jamia Millia Islamia, New Delhi	2021
M. Tech. (Information Technology)	University School of Information Technology, Guru Gobind Singh Indraprastha University, Delhi	2010
M.Sc. (Electronics)	Banasthali Vidyapith, Banasthali, Rajasthan	2003
B.Sc. (H) Electronics	Shaheed Rajguru College of Applied Sciences for Women, University of Delhi	2001
<b>Areas of Interest / Specialization</b>		
Nanotechnology, chaos		
<b>Association with Professional Bodies</b>		
<ol style="list-style-type: none"> <li>1. Secretary of the IEEE CTSoc Application-Specific CE for Smart Cities Technical Committee (SMC TC)</li> <li>2. Lifetime membership of Society of Semiconductor Devices</li> </ol>		
<b>Publications Profile</b>		
<b>Journals:</b> <ol style="list-style-type: none"> <li>1. Monika Tyagi, Ayub Khan, Mushahid Husain, Samina Husain, "Analytical studies of SWCNTs embedded in nonlinear viscous elastic media and the chaotic effect of its various parameters", International Journal of Bifurcation and Chaos in Applied Sciences and Engineering, Volume 31, Issue 06 (May 2021), <a href="https://doi.org/10.1142/S0218127421500814">https://doi.org/10.1142/S0218127421500814</a></li> </ol>		

2. Monika Tyagi, Ayub Khan, Mushahid Husain, Samina Husain, "Analytical and computational studies of the nonlinear vibrations of SWCNTs embedded in viscous elastic matrix using KBM method", *Chaos: An Interdisciplinary Journal of Nonlinear Science* 29, 023134 (2019),  
<https://doi.org/10.1063/1.5079700>
3. Monika Tyagi and Dhruv Tyagi, Polymer Nanocomposites and their Applications in Electronics Industry, *International Journal of Electronic and Electrical Engineering*, ISSN 0974-2174, Volume 7, Number 6 (2014), pp. 603-608

#### **Chapters:**

1. Khan A., Tyagi M., Husain M., Husain S. (2019) Resonant and Non-resonant Solutions of the Non-linear Vibration of SWCNTs Embedded in Viscous Elastic Matrix Using KBM Method. In: Sharma R., Rawal D. (eds) *The Physics of Semiconductor Devices. IWPSD 2017. Springer Proceedings in Physics*, vol 215. Springer, Cham. <https://doi.org/10.1007/978-3-319-97604-4-15>
2. Monika Tyagi, Ayub Khan, Mushahid Husain, Samina Husain, Analytical solution of nonlinear forced vibration of the SWNTs embedded in viscous elastic matrix with linear and nonlinear damping. *AIP conference Proceedings* 2276:1, 020034, <https://doi.org/10.1063/5.0025893>

#### **Conference Presentations-oral/Publication in Proceedings:**

1. Oral Presentation on paper titled "Dynamical Solutions of the non-linear vibration of single walled carbon nanotube embedded in viscous elastic matrix using Krylov Bogoliubov and Mitropolsky method" in International conference on Nanotechnology: Ideas Innovation and Initiatives 2017 (ICN:3I-2017) at IIT Roorkee, 2017
2. Oral Presentation on paper titled "Designing mobile application with OTP technique as an enhancement to e-attendance" at National Conference on advancements in electronics and computer applications (NCAECA-2016) at Shaheed Rajguru college of Applied Sciences for women , University of Delhi, 2016
3. Oral Presentation on paper titled "Silicon Micromachining: Prospects and challenges for future applications in MEMS fabrications" at National Conference

on Recent Trends in Instrumentation and Electronics, SRCASW, University of Delhi, 2015

4. Oral Presentation on paper titled "Current voltage (I-V) characteristics of MWCNT/polyaniline Nanocomposites" at National Conference on Recent Trends in Instrumentation and Electronics, SRCASW, University of Delhi, 2015
5. Oral Presentation on paper titled "Polymer Nanocomposites and their Applications in Electronics Industry" at international conference on recent advances in electrical engineering power control, electronics and communication technology (EEPCECT-2014) organized by Krishi Sanskriti on 31<sup>st</sup> may -1<sup>st</sup> June 2014 at Jawahar Lal Nehru University.
6. Oral Presentation on paper titled "Evaluating Big Data Techniques", at International Conference on Recent Development in Computational and Information Technology, SRM University, Modinagar, 2014
7. Oral Presentation on paper titled "Comparison of various Fault Injection Techniques", at National Conference on Mobile and Embedded Technology, Amity School of Engineering and Technology, Amity University, 2010.

**Conference Presentations-poster:**

1. Poster Presentation on paper titled "Non-linear vibration of curved SWCNTs embedded in viscous elastic matrix using Asymptotic Perturbation method for chaotic behaviour" in International Conference on Atomic, Molecular, Optical and Nano Physics with Applications, CAMNP2019 from December 18th - 20th, 2019 at Delhi Technological University, Delhi, 2019
2. Poster Presentation on paper titled "Resonant and Non-Resonant solutions of the non-linear vibration of SWCNTs embedded in viscous elastic matrix using KBM method" in International workshop on Physics of Semiconductor Devices (IWPSD 2017) at IIT Delhi, 2017

**Awards and Distinctions**

- Participated and won consolation prize in **e-Yantra Robotics Teacher Competition** held at IIT Bombay in April 2014

Administrative Responsibilities
<ol style="list-style-type: none"><li>1. Member of IQAC</li><li>2. Convener of Website Committee</li><li>3. Co-convener of Alumni Committee</li><li>4. Convener of Attendance Committee</li><li>5. Nodal Officer, Examination</li><li>6. Co-Convenor of Result Grievance Committee</li></ol>