

### Faculty Profile

<b>Faculty Name</b>	Dr. Bhawna Singla Gupta
<b>Designation</b>	Professor
<b>Qualification</b>	B.Tech, M.Tech, PhD
<b>Email</b>	Drbhawnasingla.cse@piet.co.in
<b>Area of Interest</b>	Artificial Intelligence, Machine learning, Data Science, Software Defined Networking
<b>Work Experience (Total)</b>	17
• Teaching	
• Research	
• Industry	
• Others	
<b>Courses taught at Diploma/ Post Diploma/ Under Graduate/ Post Graduate/ Post Graduate Diploma Level</b>	<ul style="list-style-type: none"> <li>• P.G. : Advanced networking, Advanced Algorithms</li> <li>• U.G.: Operating system, Computer networks, Programming in C.</li> </ul>
<b>Membership of Professional Bodies</b>	IEEE
<b>Research Publications</b>	
• Research Papers UGC-CARE	8
• Research Papers SCOPUS	2
• Research Papers WoS/SCI/ABDC	1
• List of Publications	Annexure-1
<b>Book and Chapter Publications</b>	
• Books Authored published by International Publishers	Nil
• Books Authored published by National Publishers	Nil
• Publication of Chapter in Edited Books	2
• Editor of Book by International Publishers	2
• Editor of Book by National Publishers	Nil

• Translation Work of Book	Nil
• List of Book and Chapter Publications	Anexure-2
<b>Patents</b>	
• Published	1
• List of published patent(s)	Indigenous thermal mattress to prevent neonatal hypothermia
• Filed	1
• List of filed patent(s)	A novel system for category based content recommendation using AI and neuro-linguistic programming(NLP) and method thereof
<b>PhD Guidance</b>	
• Degree Awarded	Nil
• Thesis Submitted	Nil
<b>M.Tech. Guidance</b>	
• Degree Awarded	5
• Thesis Submitted	
<b>Research Project</b>	
• List of Research project	
<b>Consultancy</b>	
• List of Consultancy	
<b>Awards &amp; Honours</b>	
• List of Awards & Honours	<p>Received Appreciation letter in 6-day workshop on Faculty enablement program “Foundation Program 4.0” organized by Infosys from 04<sup>th</sup> Jan. to 09<sup>th</sup> Jan. 2016</p> <p>Received A grade completion certificate in National workshop on “Management Capacity Enhancement Program” organized by IIM Indore from 27<sup>th</sup> Oct. to 2<sup>nd</sup>. Nov. 2014</p>
<b>Invited lectures / Resource Person/ paper presentation in Seminars/ Conferences/full paper in Conference</b>	

• International (Abroad)	0
• International (Within Country)	12
• National	3
• List of published papers	Anexure-3
<b>Organizing National Conference/ International Conference/ FDP/STTP</b>	
• List of Conference/FDP/STTP committee	3
<b>Social Contributions and Sports</b>	
• <b>List of Social Contributions and Sports</b>	

#### **Anexure-1**

1. Bhawna Singla, A. K. Verma and L. R. Raheja, “An Evaluation on Selfish node Attack and Jellyfish Attacks Under AODV Routing Protocol” International Journal in Foundations of Computer Science & Technology March 2017, Volume 7, Number 2, pp. 15-28.
2. Bhawna Singla, A. K. Verma and L. R. Raheja, “A Comparative Analysis of Jellyfish Attacks and Black hole Attack with Selfish node Attack under AODV Routing Protocol” British Journal of Mathematics and Computer Science 2017, Volume 21(2), pp.1-18.
3. Bhawna Singla, A. K. Verma and L. R. Raheja, “ Performance Analysis of AODV in Presence of Attacks ” WSEAS Transactions on Communication 2017, Volume 6, pp.85-93 (Scopus indexed IF = 0.7).
4. Mukta Chandna, Bhawna Singla, “Comparative analysis of Flooding and Gossiping in Wireless Sensor Network using SIR” International Journal of Computer science and Information technologies ISSN:0975-9646 2015, Volume 6(4), pp.4020-2023.
5. Mukta Chandna, Bhawna Singla, “Flooding Vs Gossiping” International Journal of Advanced Research 2015 ISSN: 2320-5407, Volume 3(7), pp.358-362.
6. Ritu, Bhawna Singla, “Role of Sensor Node in Wireless Sensor Network” International journal of emerging technologies and Innovative Research 2014, Vol 1(2), pp.116-118.
7. Bhawna Singla, A.K.Verma, L.R.Raheja, “Performance of AODV under different scale network”, Wulfenia , Volume 20(3) , March2013.
8. Seema Mehla, Bhawna Gupta, “Analyzing EAP TLS & ERP Protocol with varying processor speed” International Journal of Computer Applications 7(12):50–54, October 2010. Published By Foundation of Computer Science.

9. Bhawna Gupta, "Analyzing security of Authenticated Routing Protocol (ARAN)" International Journal on Computer Science and Engineering Vol. 02, No. 03, 2010, 664-668.
10. Seema Mehla , Bhawna Gupta, " The comparative cost analysis of EAP Re-authentication Protocol and EAP TLS Protocol" International Journal on Computer Science and Engineering Vol. 02, No. 03, 2010, 669-672.

#### **Anexure-2**

1. Editor of Smart distributed embedded system for healthcare applications (in progress)
2. Editor of Software defined networking (in progress)
3. Book Chapter in Machine Learning for Computer and Cyber Security: Principles, Algorithms, and Practices 2019

#### **Anexure-3**

1. Bhawna Singla, A. K. Verma and L. R. Raheja, "Preventing Black hole Attack in AODV routing Protocol" Proceedings of International Conference on Futuristic Technologies 2019 pp.11-21, GEC, Naultha ISBN: 978-936972-0-7
2. Bhawna Singla, A. K. Verma and L. R. Raheja, "Simulation of AODV under different attacks" Proceedings of International conference of Emerging Technologies-2014 pp.79-86 , NCCE, Panipat.
3. Bhawna Gupta, Preeti Nagrath, "Wormhole Attacks in Wireless Adhoc Networks and their Counter measurements : A Survey" in proceeding of 3<sup>rd</sup> IEEE international Conference on Electronics, Computer Technology 2011 indexed by Ei Compendex and ISI, Kanyakumari, April 8-10 2011.
4. Bhawna Singla, A.K.Verma, L.R.Raheja," Routing Protocols in Wireless Networks – A Comparison" in proceeding of International conference on Mathematics and Soft Computing (ICMSCAE-2010),Israna, panipat, 04-05 Dec.2010, pp.101.
5. Bhawna Singla, A.K.Verma, L.R.Raheja, "Wireless Networks" in proceeding of International conference on Mathematics and Soft Computing (ICMSCAE-2010),Israna, panipat, 04-05 Dec.2010, pp.101.
6. Bhawna Gupta, Seema Mehla "EAP methods for wireless Authentication" In proc. Of Advances in Video, Cyber Learning and Electronics (ADVANCE-10), NITTTR, Chandigarh, pp.485-489, 18-19<sup>th</sup> Feb. 2010.
7. Bhawna Gupta "Ad hoc On-Demand distance vector: Attacks and Counter measures" in proceeding of Research and development in Science, Technology and Management ( ICIT-09),PDM college of Engineering, Bahadurgadh, pp. 205, 2009.
8. Bhawna Gupta, Seema Mehla," Criteria for Quality Assessment of MCDA methods" in proceeding of Emerging Technologies in Computer Science (ETCS-09), Meerut pp.352-361, 18- 19<sup>th</sup> September 2009.

9. Bhawna Gupta, Seema Mehla, Preeti bathla “Security analysis of AODV routing protocol” in proceeding of Recent Innovations in Computing and Networking (SUSET-2009), Tangori, Mohali pp.170-174, 28<sup>th</sup> august 2009.
10. Seema, Mehla, Bhawna Gupta, Virender Mehla “Virtual private network” In Proc. Of Recent Innovations in Computing and Networking (SUSET-2009), Tangori, Mohali pp.166-169, 28<sup>th</sup> august 2009.
11. Bhawna Gupta “SSL Servers : Performance and Cryptographic Strength ” in international level conference organized APIIT on 8-9 Nov.2008
12. Bhawna Gupta “ Wireless LAN : Security Measures and Assessment” in Proc. Of NCETET-2008, Deen Bandhu chhottu Ram University,Murthal pp.21-26, 2008.
13. Bhawna Singla, A.K.Verma, L.R.Raheja, “ Blackhole attack in AODV Routing Protocol” in proceeding of National Conference AEMAS, TERII, Kurukshaetra, 2013 (indexed by Elseveir).
14. Bhawna Gupta, “A Review paper on AODV Routing Protocol” in UGC sponsored National Seminar “ Information Technology & Information and Communication Technology- Trends, Issues and Challenges, Panipat, 26-27 March, 2011.
15. Bhawna Gupta, “Access Control:principle, decidability, implementation, practice” National conference organized by Indian society of information theory and application on 8-9<sup>th</sup> Dec 2007.