

Faculty Profile

Name : Dr. Geetika Dhand
Designation : Associate Professor
Qualifications : Ph.D ,M.Tech, B.E.
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Area of Interest/Specialization : Wireless Sensor Network, Computer Networks , Database Management System, Data Structure
Experience : 17 years



Key Publications

1. Geetika Dhand and S.S Tyagi, "SMEER: Secure Multi-tier Energy Efficient Routing Protocol for Hierarchical Wireless Sensor Networks", *Wireless Personal Communications*, 105(1), pp.17-35, 2019 (SCIE).
2. G. Dhand and K. Sheoran, "Protocols SMEER (Secure Multitier Energy Efficient Routing Protocol) and SCOR (Secure Elliptic curve based Chaotic key Galois Cryptography on Opportunistic Routing)", *Materials Today: Proceedings*, Vol.37, pp. 1324-1327, 2021, (Scopus)
3. Geetika Dhand and S.S Tyagi, "SMEER: Secure multi-tier energy efficient routing protocol for location privacy preserving hierarchical wireless sensor networks", *Journal of Advanced Research in Dynamical and Control Systems (JARDCS)*, Vol. 9. Sp– 18, pp 3030-3057, 2017(Scopus).
4. Geetika Dhand and S.S Tyagi, "Data aggregation techniques in WSN: Survey", *Procedia Computer Science*, 92, pp.378-384, 2016 (Scopus).
5. Geetika Dhand and Kavita Sheoran, "Evaluate AODV to DSR and Improving AODV", *Journal of University of Shanghai for Science and Technology*, Volume 23(1), pp 247-252 , 2021.
6. Geetika Dhand, "Performance Analysis of Machine learning Algorithm for chronic kidney disease", *International Journal of all Research education & Scientific methods* , Vol 9(1) pp 1988-1992, Jan 2021
7. Geetika Dhand , "Wi-Fi Based Home Automation System ", *GIS Science Journal*", Vol 8(1), pp 1215-1217, 2021
8. Parul Agarwal ,Geetika Dhand ,Ahmed J. Obaid, Kavita Sheoran "Smart Irrigation with Machine Learning Based Decision Support System", *IJMA*, vol. 10, no. 2, pp. 4003 - 4013, May 2021.
9. Geetika Dhand and Kavita Sheoran, " Ad-Hoc on Android using Wi-Fi Direct", *International Journal of Engineering and Advanced Technology* ,9(6),41-44, Aug 20.

10. Geetika Dhand and S.S Tyagi, "Performance Analysis of various Routing Protocols in Mobile Ad-hoc Networks", International Journal of Applied Engineering Research (IJAER), Volume 13, Number 10, pp. 7378-7382, 2018.
11. Geetika Dhand and S.S Tyagi, "Comparison between KMean PSO and K-mean Ant lion optimization", International Journal of Management, Technology and Engineering (IJMTE)", Volume 8, Issue VII, pp 36-39, 2018.
12. Geetika Dhand and S.S Tyagi, "Survey on Data-Centric protocols of WSN", International Journal of Application or Innovation in Engineering & Management (IJAIEM), 2(2), pp 279-284, 2013.
13. Geetika Dhand, Shubhi Ahluwalia , Alind Lali , Arpan Bansal , Kushagr,"An Analysis on K-Means Clustering Algorithm in Data Mining", MSIT Journal of Research –SATYAM, Volume 6, pp22-25, (2017-18)

Papers presented in Conferences

1. S.Malik ,K.Sheoran and G. Dhand ,“A System for Providing Insights on a Tourist Spot based on Text Mining ”. 4th International Conference on Innovative Computing & Communication (ICICC) 2021.
2. M. Kanela ,H. Dhingra, M. Singhal and G. Dhand, “Secure and Manage Passwords with Encryption and Cloud Storage ” , 4th International Conference on Innovative Computing & Communication (ICICC) 2021
3. A.Gautam H.Jain ,A. Senger, G.Dhand, “Battle Royale: First-Person Shooter Game ”,4th International Conference on Innovative Computing & Communication (ICICC) 2021
4. Geetika Dhand and S.S Tyagi, “Cluster head Techniques: Survey”, in the INDIACom-2018 held at Bharati Vidyapeeth’s Institute of Computer Applications and Management (BVICAM) on 14th - 16th March 2018 .
5. Geetika Dhand “Comparison of Different digital watermarking Techniques” in National Conference on recent Trends in information technology – Computer society of India, G.E.C, Gwalior-12th -13th April 2008.
6. Geetika Dhand “Effect of noise on watermarking techniques” in National seminar on information Superhighway: A road to excellence, Delhi Institute of Advanced Studies Delhi-15th March ,2008.
7. Geetika Dhand “Information Hiding Techniques” in 2nd National conference on computing for nation development-The Institution of Electronics and Telecommunication, (IETE, Delhi Centre), Bharati Vidyapeeth Delhi-INDIACOM2008(08-09 February,2008)
8. Geetika Dhand “Data hiding in Digital Images” in Indian National Science Academy-ORSI (04-06 December,2007).
9. Geetika Dhand and S.Anis “Regression testing” in National conference on computing for nation development-The Institution of Electronics and Telecommunication, (IETE, Delhi Centre), Bharati Vidyapeeth Delhi-INDIACOM2007(23-24 February,2007).
10. Geetika Dhand, “Object oriented Software Engineering” National conference on computing for nation development-The Institution of Electronics and Telecommunication, (IETE, Delhi Centre), Bharati Vidyapeeth Delhi-INDIACOM2007(23-24 February 2007).

Patent/Copyright

1. Dr. Gaurav Dubey,Mr. Harivans Pratap Singh,Dr. Charu Agarwal,Dr. Vikas Yadav,Dr. Kavita Sheoran,Dr. Prabhjot Kaur Sidhu,Dr. Geetika Dhand,Dr. Anupama Kaushik and Ms. Shaily Malik published a patent titled

“IOT Based Smart Shoes for Child Health Monitoring”,Patent filed on 20/3/2021,Published on 26/03/2021,Patent No.202111011966A

2. Mr. Harivans Pratap singh,Dr.. Gaurav Dubey,Dr. Anil Kumar Dubey,Dr. Kavita Sheoran Dr. Prabhjot Kaur Sidhu,Dr. Geetika Dhand,Dr. Anupama Kaushik,Ms. Geetanjali Sharma published a patent titled ,“Method electronic device for monitoring user in work site” ,patent filed on 20/3/2021,published on 26/03/2021,patent No.202111011965
3. Mr. Harivans Pratap singh,Dr. Gaurav Dubey,Dr. Akash Punhani,Dr. Anupama Kaushik, Dr. Prabhjot Kaur Sidhu,Dr. Geetika Dhand,Dr. Kavita Sheoran ,Dr. Nishtha Jatana published a patent titled "Method and electronic device for personalizing user activity in virtual reality environment",Patent filed on 20/3/2021,Published on 26/03/2021,Patent No.202111011967.
4. Parul Aggarwal,M Afshar,Sherin,Geetika Dhand, Amita Yadav, Kavita Sheoran, Sonia Rathee, Tabish Mufti, Faraz Doja, Siddhartha Sankar published a patent titled “Cartoonify Image Detection Using Machine learning”, Patent filed on 6/04/2021 ,Published on 30/04/21 ,Granted on 5/05/2021, Patent No. 2021101766
5. Mr.Simerneet Singh, Dr.Nishtha Jatana, Dr.Kavita Sheoran, Dr.Geetika Dhand, Mr.Vasu Goel published a patent titled , “Communication Assistance System and Method of operating the system”,Patent filed on 15/04/2021 published on 23/04/2021

Book Chapter/Books published

- Geetika Dhand “Information Hiding-watermarking”,Lambert Academic Publishing, ISBN 978-620-0-65380-2, Feb 2020.

Memberships of Professional bodies:

- Life Member(LM-108180) with Indian Society for Technical Education (ISTE) .

Other Contribution

- Currently **Convener** of all type Scholarship scheme
- Sponsorship committee **Coordinator** in ICAIA 2020(The International Conference on Artificial Intelligence and Applications) organized by MSIT
- **Co convener** in Technical fest Avenis 2020, Avenis 2018 and Avenis 2012
- Innovation activity committee **coordinator** under Innovation cell (From Aug 2019 to till date.)
- **Co -convener** of Alumni Committee from Aug 2017 to July 2019.
- **Convener** of Alumni committee from Aug 2016 to July 2017.