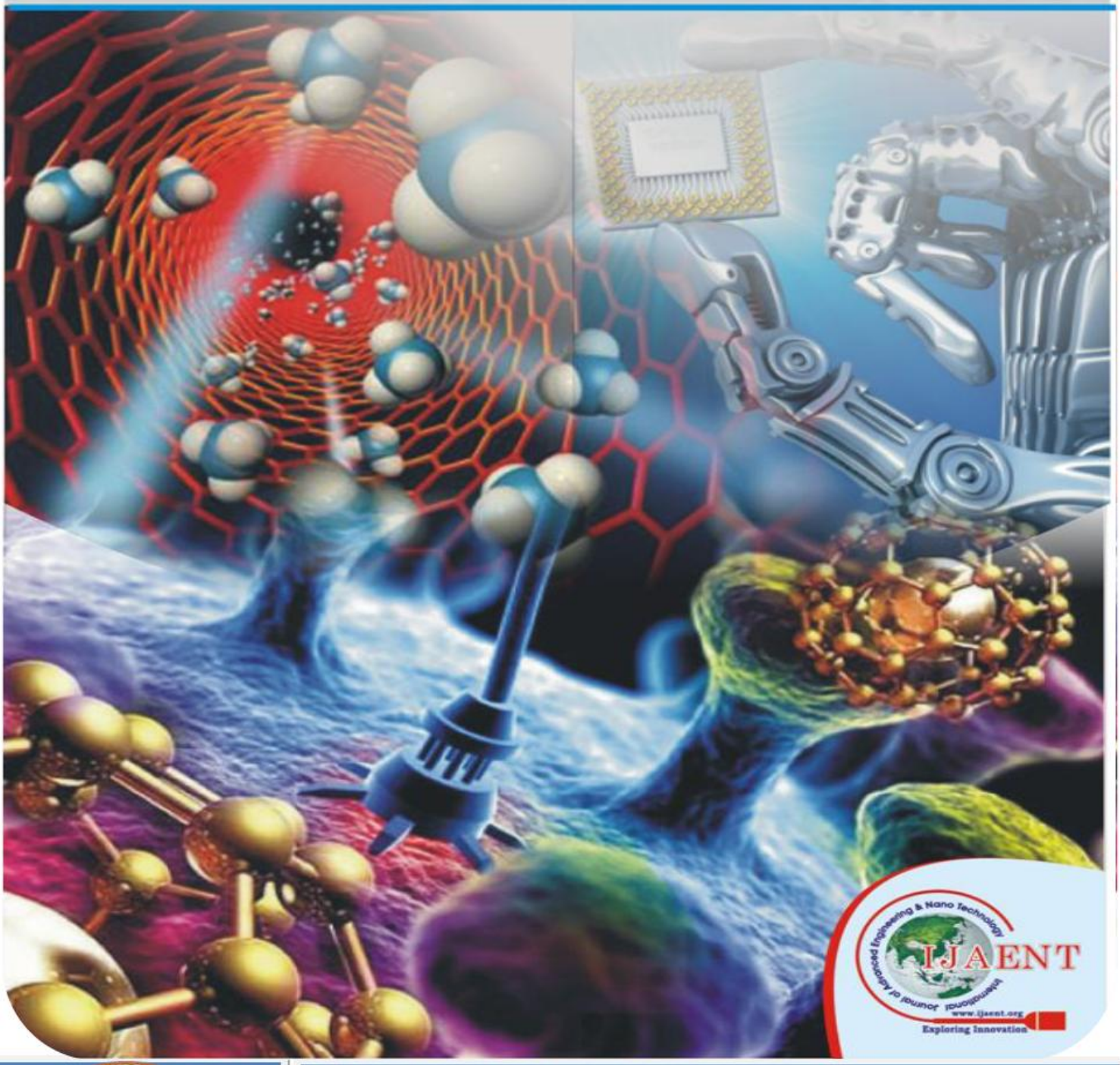
Volume 3 Issue 7, January 2017

International Journal of Advanced Engineering and Nano Technology



Blue Eyes Intelligence Engineering & Sciences Publication Pvt. Ltd.
Exploring Innovation: A Key for Dedicated Services

Address:
22, First Floor, ShivLoke Phase-IV,
Khajuri Kala, BHEL-Piplani, Bhopal (M.P.)-462021, India
Website: www.blueeyesintelligence.org
Email: director@blueeyesintelligence.org, blueeyes@gmail.com
Cell #: +91-9669981618, **WhatsApp #:** +91-9669981618, **Viber #:** +91-9669981618
Skype #: beiesp, **Twitter #:** beiesp

Technical Advisory Board

S. No	Volume-3 Issue-7, January 2017, ISSN: 2347-6389 (Online) Published By: Blue Eyes Intelligence Engineering & Sciences Publication Pvt. Ltd.	Page No.

1.

Authors: Ravi Lodhi, Shiv Kumar, Babita Pathik

Paper Title: An Attack Proof Trust Model for Secure Path Selection with Data Transmission in MANET

Abstract: A mobile ad-hoc network (MANET) is a network of mobile nodes which also act as routers and are connected by wireless links. These routers are free to move and organize themselves at random; thus, the network's wireless topology may change rapidly and unpredictably. The dynamic nature of MANETs makes network open to attacks and unreliability. MANETs are vulnerable to various security attacks. Hence, finding a secure and trustworthy end-to-end path in MANETs is a legitimate challenge. Dynamic source routing set of rules is a functional protocol in wireless mobile ad-hoc network (MANET). Data Safekeeping and detection of malicious node in a MANET is an imperative job in any network. To achieve reliability and availability, routing protocols should be powerful against malicious attacks. This paper provides a trust model that detects attacks while data transmission and finding secure route in MANET. Experimentally outcome indicated that system is fined appropriate for confident and enhanced data communication. The structure also accomplishes protected routing to safeguard MANET against malevolent node. The outcomes exposed that the scheme security and throughput of the system is enhanced.

Keywords: MANET, secure routing, malicious attack, Ad hoc Network, Wireless Routing Protocol, trust value.

References:

1. Amit N Thakre ,Mrs M.Y.Joshi "Performance Analysis of AODV & DSR routing Protocol in Mobile ad-hoc network", IJCA special Issue on "mobile ad-hoc network", MANETs 2010
2. David A. Maltz, "On demand routing in multi-hop wireless mobile ad-hoc network" CMU-CS-01-130, PhD. Desertion, School of computer science Carnegie Mellon University, Pittsburgh PA- 2001.
3. Tanvi Arora, Amarpreet Kour, Mandeep Singh," Review of various routing protocols and routing Models for MANRTs", International Journal of Innovation & Advancement in CS ,IJIACS,ISSN 2347- 8616,Vol.4 Special Issue, MAY 2015.
4. Elizabeth M Royar and Chai Kunh toh,"A Review of current routing protocol for ad-hoc mobile Wireless network", Technical report, University of California and Georgia Institute of Technology,USA,1999.
5. David B Johnson, David A. Maltz , Josh Broch ,"DSR: The dynamic source routing protocol for Multi-Hop wireless Ad-hoc network", Computer Science Department, Carnegie Mellon University, Pittsburgh,PA 15213-3891,http://www.monarch.cs.cmu.edu.
6. Antesar M. Shabut, Keshav P. Dahal, Sanat Kumar Bista, and Irfan U. Awan, Recommendation Based Trust Model with an Effective Defence Scheme for MANETs, IEEE TRANSACTIONS ON MOBILE COMPUTING, VOL. 14, NO. 10, OCTOBER 2015, pp-2101-2115
7. H. Deng, W. Li, and D. Agrawal, "Routing security in wireless ad hoc networks," IEEE Commun. Mag., vol. 40, no. 10, pp. 70–75, Oct. 2002.
8. B. Wu, J. Chen, J. Wu, and M. Cardei, "A survey of attacks and countermeasures in mobile ad hoc networks," in Wireless Network Security. New York, NY, USA: Springer, 2007, pp. 103–135.
9. N. Pissinou, T. Ghosh, and K. Makki, "Collaborative trust-based secure routing in multihop ad hoc networks," in Proc. Netw. Netw. Technol., Services, Protocols; Perform. Comput. Commun. Netw.; Mobile Wireless Commun., 2004, pp. 1446–1451.
10. S. Buchegger and J. Y. Le Boudee, "Self-policing mobile ad hoc networks by reputation systems," IEEE Commun. Mag., vol. 43, no. 7, pp. 101–107, Jul. 2005.
11. G. V. Crosby, L. Hesterand, and N. Pissinou, "Location-aware, trust-based detection and isolation of compromised nodes in wireless sensor networks," Int. J. Netw. Security, vol. 12, no. 2, pp. 107–117, 2011.

2.

Authors: Muddasar Ali, M. Ejaz Hassan

Paper Title: Multi-Area Load Frequency Control (LFC) for Power System using PID Controlled Power System Stabilizer (PSS)

Abstract: Nowadays power demand is increasing continuously and the biggest challenge is to provide good quality of power to the consumer under changing load conditions. For satisfactory operation, the frequency of power system should be kept near constant value. Continuous change in frequency by variation of load is a big challenge for generating unit to compensate it as quickly as possible. Many techniques have been proposed to obtained constant value of frequency and to overcome any deviations. The load-frequency control (LFC) is used to restore the balance between load and generation by means of speed control. The main goal of LFC is to minimize the transient deviations and steady state error to zero in advance. PID is a conventional controller that can be used for LFC to get faster and better results. If conventional Controller and power system stabilizer (PSS) are used together then more effective result can be achieved rather than their individual use for LFC. This paper presents a comparison of Multi-area LFC with and without conventional controller and conventional controller in the presence of power system stabilizer (PSS) using MATLAB/SIMULINK software package. Reduction in settling time, overshoot and frequency deviation was successfully achieved by Using PID controlled Power system Stabilizer (PSS).

Keywords: Load Frequency Control (LFC), Conventional PID Controller, Power system stabilizer (PSS).

References:

1. Pradipkumar Prajapati, "Multi-area Load Frequency Control by Various Conventional Controller using Battery Energy

Storage System" 978-1-4673-9925-8/16/$31.00 ©2016 IEEE.
2. Gajendra Singh Thakur,"Load frequency control in Single area with traditional Ziegler-Nichols PID Tuning controller" International Journal of Research in Advent Technology, Vol.2, No.12, December2014 E-ISSN: 2321-9637.
3. Mohinder Pal,"To Control Load Frequency by using Integral Controller" International Journal of Innovative Research in Science, Engineering and Technology (An ISO 3297: 2007 Certified Organization)Vol. 3, Issue 5, May 2014.
4. K. Nakayama, None Member, IEEE, G. Fujita, Member,IEEE, R. Yokoyama, Member, IEEE, "Load Frequency Control for Utility Interaction of Wide-Area Power System Interconnection" IEEE T&D, Asia, 2009.
5. Manisha Sharma, Laxmi Shrivastava and Manjree Pandit"Corrective Action Planning For Power System Load
6. Frequency Control" IEEE International Conference on Power, Energy and Control (ICPEC), 2013.
7. Kundur .p, Power System Stability and Control. New York: McGraw-Hill, 1994.
8. Ohba . S, Ohnishi . H, and Iwamoto. S, "An Advanced LFC Design Considering Parameter Uncertainties in Power Systems,"Proceedings of IEEE conference on Power Symposium, pp. 630–635, Sep. 2007.
9. Saadat . H (1999) Power system analysis. McGraw-Hill, New York. Dorf . RC, Bishop. RH (2001) Modern control systems, 9th edn. Prentice-Hall, New new jersey.
10. Robert Herschel Miller, James. Malinowski, Power system operation, McGraw-Hill Professional, 1994.
11. Pan CT, Liaw CM., "An adaptive controller for power system load-frequency control," IEEE Transactions on Power Systems, 4 (1). 122-128, 1989 .
12. Usman A, Divakar B., "Simulation study of load frequency control of single and two area systems," In IEEE 2012 Global Humanitarian Technology Conference, 214-219, Oct 2012.
13. Hatem Elaydi," Optimal Controller for Single Area Load Frequency Control via LQR and Legendre Wavelet Function", Journal of Automation and Control, 2015, Vol. 3, No. 2, 43-47.
14. Adnan B, Ebenezer JA., "Load frequency control with fuzzy logic controller considering nonlinearities and boiler dynamics," ACSE, l8 (3).15-20, 2009.
15. Ghazanfar Shahgholian," Power System Stabilizer Application for Load Frequency Control in Hydro-Electric Power Plant", Engineering Mathematics, 2017: 21-30.
16. P. Chauhan, V. Pandya, J. Chauhan, R. Karangia, "Simulation and analysis of ALFC with higher order prime-mover models for single control area", Proceeding of the IEEE/ICEETS, pp.1084-1089, Nagercoil, April 2013.
17. S. Pothiya, I. Ngamroo, S. Runggeratigul, P. Tantaswadi, "Design of optimal fuzzy logic based PI controller using multiple tabu search algorithm for load frequency control", International Journal of Control, Automation, and Systems, Vol. 4, No. 2, pp. 155-164, April 2006.
18. R. Akkawi, L. A. Lamont and E. El Chaar, "Comparative Study between Various Controllers for Power System Stabilizer using Particle Swarm Optimization", IEEE proceedings of the Conference on Generation, Transmission, and Distribution, 2009.
19. Lee, H.J.; Park, J.B.; Joo, Y.H. Robust Load Frequency Control for Uncertain nonlinear power systems: A fuzzy logic approach. Inf. Sci. 2006, 176, 3520–3537.
20. Cam, E.; Kocaarslan, I. Load frequency control in two area power systems using fuzzy logic controller. Energy Convers. Manag. 2005, 46, 233–243.
21. Ali M. Yousef, Ahmed M. Kassem, " Optimal Power System Stabilizer Based Enhancement of Synchronizing And Damping Torque Coefficients," WSEAS TRANSACTIONS on POWER SYSTEMS, Issue 2, Volume 7, April 2012.
22. Ashish Tewari, "Modern Control Design With Matlab And Simulink," Book-2003.
23. J. H. Chow, J. J. Sanchez-Gasca, H. Ren, and S. Wang,"Power system damping controller design using multiple input signals," IEEE Contr. Syst. Mag., vol. 20, no. 4, pp. 82–90, Aug. 2000.

3.

Authors: **S. K. Dora**

Paper Title: **Atomic Force Microscopy as a Quantitative Tool for Particle Characterization: From Microns to Angstrom Scale**

Abstract: Nanoparticles constitute a crucial and technology intensive area of research and development in the continuous expanding field of nanotechnology. They are becoming increasingly important in many areas, including data storage, plasmonic, photonic, microelectronic, energy, pharmaceutical, biomedical, and cosmetics etc. Using Atomic Force Microscope (AFM), individual particles of varying sizes ranging from µm to sub-nanometer level can be resolved and unlike other microscopy techniques, the AFM offers visualization and quantitative analysis in three dimensions. In this manuscript, AFM was effectively used to characterize different particles (SnO2, ZnO and TiO2) whose sizes varied between µm to angstrom level on a mica substrate. Further, the possibility of combining AFM and image post processing software Gwyddion, to extract quantitative data even for angstrom size particles are demonstrated.

Keywords: AFM, Nanopartciles, Quantitative Analysis

References:

1. Günter Schmid, Nanoparticles: From Theory to Application. Wiley- VCH Verlag GmbH (2004)
2. Natural Polymer Drug Delivery Systems: Nanoparticles, Plants, and Algae, Springer international publishing 2016.
3. Lei Shen, J Funct Biomater. 2011 Dec; 2(4): 355–372.
4. Sovan Lal Pal, Utpal Jana, P. K. Manna, G. P. Mohanta, R. Manavalan, Journal of Applied Pharmaceutical Science 01 (06); 2011: 228-234.
5. Agbabiaka, M. Wiltfong and C. Park, Journal of Nanoparticles, Volume 2013, Article ID 640436, 11 pages.
6. R. Pecora, Journal of Nanoparticle Research 2: 123–131, 2000.
7. Bireswar Paul, Amitava Datta, International Journal of Advances in Engineering Sciences and Applied Mathematics, June 2014, Volume 6, Issue 1, pp 97–105.
8. Javier A. Lopez, Ferney González , Flavio A. Bonilla , Gustavo Zambrano , Maria E. Gómez, Revista Latinoamericana de Metalurgiay Materiales 2010; 30 (1): 60-66.
9. Richard C. Murdock Laura Braydich-Stolle Amanda M. Schrand John J. Schlager Saber M. Hussain, Toxicol Sci (2008) 101 (2): 239- 253.
10. Bruno Torre, Giovanni Bertoni, Despina Fragouli, Andrea Falqui, Marco Salerno, Alberto Diaspro, Roberto Cingolani & Athanassia Athanassiou, Scientific Reports 1, Article number: 202 (2011).
11. Prastani, A. Vetushka, A. Fejfar, M. Nanu, D. Nanu, Appl. Phys. Lett. 101, 083107 (2012).
12. Abdelghani Laraoui, Halley Aycock-Rizzo, Yang Gao, Xi Lu, Elisa Riedo & Carlos A. Meriles, Nature communications, 6:8954 (2015).
13. P. Paik, K.K. Kar, D. Deva and A. Sharma, Micro & Nano Letters, 2007, 2, (3), pp. 72–77.
14. Rasheed, Rashed T.; Al-Algawi, Sariya D, Journal of Advanced Physics, Volume 5, Number 3, September 2016, pp. 236-240(5).

15. Sangeetha Nagarajan and Kumaraguru Arumugam Kuppusamy, J Nanobiotechnology. 2013; 11: 39.
16. M. F. Achoi, M. N. Asiah, M. Rusop and S. Abdullah, Advanced Materials Research, Vol 667, pp 128-134 (2013).
17. H. Liu, Sh. Gong, Y. Hu, J. Zhao, J. Liu, Zh. Zheng, D. Zhou, Ceram. Int. 35 (2009) 961-966.
18. X. Chu, Y. Han, S. Zhou, H. Shui, Ceram. Int. 36 (2010) 2175-2180.
19. Y. Tan, Ch. Li, Y. Wang, J. Tang, X. Ouyang, Thin Solid Films 516 (2008) 7840-7843.
20. Y. Wang, Ch. Ma, X. Sun, H. Li, Inorg. Chem. Commun. 5 (2002) 751-755.
21. Amir Moezzi, Andrew M. McDonagh and Michael B. Cortie, Chemical Engineering Journal 185– 186 (2012) 1– 22.
22. Sidra Sabir, Muhammad Arshad, and Sunbal Khalil Chaudhari, The Scientific World Journal, Volume 2014 (2014), 8 pages.
23. T. N. V. K. V. Prasad, P. Sudhakar, Y. Sreenivasulu, Journal of Plant Nutrition, vol. 35, no. 6, pp. 905–927, 2012.
24. Threes G Smijs and Stanislav Pavel, Nanotechnol Sci Appl. 2011; 4: 95–112.
25. Harald Lorenza, Matthias Friedrichb, Marc Armbrüsterb, Bernhard Klötzera, Simon Pennera, Journal of Catalysis, Volume 297, January 2013, Pages 151–154.
26. Alex Weir, Paul Westerhoff, Lars Fabricius and Natalie von Goetz, Environ Sci Technol. 2012 Feb 21; 46(4): 2242–2250.
27. Aaron Wold, Chem. Mater., 1993, 5 (3), pp 280–283.
28. Gupta Shipra Mital & tripathi Manoj, Chinese Science Bulletin, June 2011 Vol.56 No.16: 1639–1657.
29. Alfred Y. C. Tong, Rhiannon Braund, David S. Warren, Barrie M. Peake, Central European Journal of Chemistry, August 2012, Volume 10, Issue 4, pp 989–1027.

4.

Authors: **Supreet Kaur, Amanpreet Singh, Rajeev Kumar**

Paper Title: **Cloud Computing: Risk Analysis on Cloud Security**

Abstract: Since the cloud's idea needs surveying of assets with extra cloud owner's, subsequently, business rudiments or other customer basic data is available for cloud and in addition to outcast cloud. In any foundation of distributed computing, a noteworthy component is security since essential is guaranteeing the approved get to and secure lead is ordinary. Standard issues of security still have in distributed computing. However, as large business limits have been extended to the cloud, standard security frameworks are not completely sensible for data and applications in cloud.

Keywords: Cloud computing

References:

1. Kang, Seungmin, Bharadwaj Veeravalli, and Khin Mi Mi Aung. "A Security-Aware Data Placement Mechanism for Big Data Cloud Storage Systems." Big Data Security on Cloud (BigDataSecurity), IEEE International Conference on High Performance and Smart Computing (HPSC), and IEEE International Conference on Intelligent Data and Security (IDS), 2016 IEEE 2nd International Conference on. IEEE, 2016.
2. Gai, Keke, Meikang Qiu, and Sam Adam Elnagdy. "A novel secure big data cyber incident analytics framework for cloud-based cybersecurity insurance." Big Data Security on Cloud (BigDataSecurity), IEEE International Conference on High Performance and Smart Computing (HPSC), and IEEE International Conference on Intelligent Data and Security (IDS), 2016 IEEE 2nd International Conference on. IEEE, 2016.
3. Chen, Deyan, and Hong Zhao. "Data security and privacy protection issues in cloud computing." Computer Science and Electronics Engineering (ICCSEE), 2012 International Conference on. Vol. 1. IEEE, 2012.
4. Baker, T., et al. "GreeDi: An energy efficient routing algorithm for big data on cloud." Ad Hoc Networks 35 (2015): 83-96.
5. Fazio, Maria, et al. "Big data storage in the cloud for smart environment monitoring." Procedia Computer Science 52 (2015): 500-506.
6. Demirkan, Haluk, and Dursun Delen. "Leveraging the capabilities of service-oriented decision support systems: Putting analytics and big data in cloud." Decision Support Systems 55.1 (2013): 412-421.
7. Teli, Prasad, Manoj V. Thomas, and K. Chandrasekaran. "Big Data Migration between Data Centers in Online Cloud Environment." Procedia Technology 24 (2016): 1558-1565.
8. Chang, Victor, and Muthu Ramachandran. "Towards achieving data security with the cloud computing adoption framework." IEEE Transactions on Services Computing 9.1 (2016): 138-151.
9. Teli, Prasad, Manoj V. Thomas, and K. Chandrasekaran. "Big Data Migration between Data Centers in Online Cloud Environment." Procedia Technology 24 (2016): 1558-1565.
10. Malhotra, Rahul, and Prince Jain. "Study and comparison of various cloud simulators available in the cloud computing." International Journal 3.9 (2013).