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	Paper Title:	Performance Evaluation of a Small-Medium Scale Yam Chips Dryer	
	<p>Abstract: The design, construction and performance evaluation of a yam chips dryer using fuel wood as source of heat was undertaken with a view to helping small scale farmers process yam chips. The dryer consists of a frame, drying chamber, tray, fuel wood housing, perforated air space and chimney. The dryer was evaluated in terms of final moisture content, drying capacity; time taken to dry the chips and the quality of the chips. Results showed that the moisture content of 71.05% (wb) was reduced to 17.23% , the drying capacity was 6kg per loading and the time taken to dry the chips was increased to about 4hrs due to difficulty in regulating the heat produced by the fuel wood. Compared to other types of dryers (solar dryer, platform dryer, flat – bed dryer, continuous dryer e.t.c), the batch type dryer is preferred due to its ability to be used during rainy season and in the absence of electricity. The quality of the chips was found to be good. The dryer has an efficiency of 76%. The evaluation of the dryer shows that it can be used for small scale drying of yam chips.</p>		1-4
	<p>Keywords: Batch type dryer, fuel wood, small scale, performance evaluation, yam chips.</p> <p>References:</p> <ol style="list-style-type: none"> Akingbala, J., Oguntimehin, T., and Sobande, A. O., Physicochemical properties and acceptability of yam flour substituted with is flour. <i>Plants Foods for Human Nutrition</i>, 48(1), pp. 73-80, 1995. Akissoe, N., Hounhonigan, D. J., Brias, N., Vernier, P., Nagô, C. M. and Olorunda, A. O., Physical chemical and sensory evaluation of dried yam (<i>Dioscorea rotundata</i>) tubers flours and "amala" a flour derived product. <i>Tropical Science</i>, 41(1), pp. 151-155, 2001 Montes, E., Torres, R., Andrade, R., Perez, O., Marimon, J. and Meza, I., Models of desorption isotherms of yam (<i>Dioscorea rotundata</i>). <i>Dyna</i>, 76(154), P. 146, 2009. Opara, L., Yam storage in Agriculture processing. <i>Handbook of agricultural engineering</i>, IV, pp. 182-214. 1999 Ruiz, A., and Montero, I., Drying lot of industrial residuals of the olive. <i>Alimentación equipos y tecnología</i>, 24, pp. 122-134, 2005. Cardoso, A., and Asis, F., Comparison of mathematical models of isothermic heat of desorción in pulp of Guava. <i>Brazil journal storage</i>, 29(1), pp. 28-34, 2004. Babaleye, T. (2003). "West Africa; Improving Yam Production Technology". ANB – BIA supplement Issue/Edition Nr 463. Central Bank of Nigeria (2002). <i>Statistical Bulletin</i>, CBN Publication, 252 -260pp. CGIAR (1997). <i>Priorities and Strategies for resource allocation during 1998 – 2000</i>. www.igiar-org, Consultative Group on international Agricultural Research. Food and Agriculture Organisation (FAO) (1987). "Formulation Reports: Roots and Tubers Expansion Programme". FAO, Rome, Italy. Food and Agriculture Organisation (FAO) (2002). <i>Food and Agriculture Organisation year book Volume 56</i>. International Institute of Tropical Agriculture (IITA) (1998). <i>Annual Report</i>, IITA, Ibadan, 1- 15 pp. Kalu, B.R and Erhabor, P.O. (1992). Production and Economic evaluation of white guinea yam minisett under ridge and bed production system in a tropical guinea savanna location, Nigeria. <i>Tropical Agriculture</i>, Trinidad, 61 : 78 – 81 Osisioju I.U.W, Uzo, J.O. (1973). Industrial Potential of some Nigeria Yam and Cocoyam Starches, <i>Tropical Science</i>, 15 : 353 – 359 Oyenuga, V.A. (1968). <i>Nigeria Food and Feedstuff</i>, University Press, Ibadan, pp 20 – 27 Nweke FI, Ugwu BO, Asadu CL, Ay P. Production cost in the yam based cropping system south western Nigeria. <i>Research monograph No. 6 IITA Ibadan, Nigeria 1991</i>; pp 4-12 Agwu AE, Alu JI. Farmers perceived constraints to yam production in Benue state, Nigeria. <i>Proceedings of the 39th Annual Conference of the Agricultural society of Nigeria 2005</i>; pp 347-50. Iwueke CC, Mbata EN, Okereke HE. Rapid Multiplication of seed yam by minisett technique National Root Crops Research Institute, Umudike Abia State, Nigeria. <i>Advisory Bulletin 2003</i>; No. 9 pp 5. Food and Agricultural Organization (FAO) (2008) <i>FAOSTAT Statistical Division of the FAO of the United Nations Rome, Italy 2008</i>; www.faostat.org 		
2.	Authors:	Sanjay Salla, Jayeshkumar Pitroda, B. K. Shah	
	Paper Title:	Comparative Study on Rice Husk and Ground Nut Shell in Fly Ash Bricks	
	<p>Abstract: In India, large quantities of fly ash being generated, as most of our energy demand is met through coal based thermal power station. The fly ash generation is expected to grow further as coal would continue to remain major source of energy at least for next 25 years. The fly ash which is a resource material, if not manage well, may pose environmental challenges. At the same time world-wide agricultural footprint is fast growing, with vast agricultural land cultivation and active expansion of the agro based industries. The resulting large quantities of agricultural wastes, unfortunately, are not always well managed or utilized. These wastes can be recycled, such as by retrieving fibres from disposed leaves and fruits bunches, and then incorporate in brick making. The Agricultural Waste was sourced from Rice Husk and Ground Nut Shell added within the range. This research describes change in the physical properties such as weight, density etc. and mechanical properties like compressive strength of fly ash bricks made by adding different Agricultural Waste.</p>		5-8
	<p>Keywords: Agricultural Waste Fly Ash Bricks, Agro-waste in Bricks, Fly ash bricks with agro-waste.</p> <p>References:</p> <ol style="list-style-type: none"> Aashish Kumar Parashar, RinkuParashar (2012), "Comparative Study on Compressive Strength of Bricks Made With Various Materials to Clay Bricks.", <i>International Journal of Science and Research Publication</i>, Volume 2, Issue 7, July. Chee-Ming Chan – Effects of Natural Fibres Inclusion in Clay Bricks: Physco-Mechanical Properties, <i>International Journal of Civil and Environmental Engineering</i>, March 2011. J. Clerk Maxwell, <i>A Treatise on Electricity and Magnetism</i>, 3rd ed., vol 2. Oxford: Clarendon, 1892, pp.68-73. Jayesh Pitroda, Rajiv Bhatt, Indrajit Patel, and Dr. F.S.Umrigar, - Techno- Economical Study of FAL-G bricks-A Case study, <i>National conference on fly ash/ Futuristic Material in civil Engineering Construction For Sustainable Development</i>, pp. 1-2, 2010. Malaviya S K, Chatterjee B and Singh K K (1999), "Fly ash- an emerging alternative building material", <i>proceedings of National Seminar</i>, February 26-27 1999, pp. 59. 		

5. MayurkumarPatoliya, Jayesh Pitroda (2012), "An Experimental Study of Utilization Aspect Of Natural/Artificial fibre in Fly ash Bricks in Central Region of Gujarat", National conference on advance in Engineering and advance in engineering and technology March 2012, pp.13.1-13.4 Kalol, Gujarat.
6. Mr. Ankit Patel, Mr. Sanjay Salla, Prof. Jayeshkumar Pitroda (January 2013), "A Study on Utilization of Agro-Wastes as an Innovative Material in Indian Context.", International Journal Of Scientific Research (IJSR), ISSN – 2277 – 8179, Volume: 2, Issue: 2, Page No.: 30-35
7. Mr. Sanjay Salla, Prof. Jayeshkumar Pitroda, (December 2012), "A Comparative Review on: Effect of Natural Fibres Inclusion In Fly Ash Bricks.", ParipeX - Indian Journal Of Research, ISSN – 2250 – 1991, Volume: 1, Issue: 12, Page No.: 62-64
8. Nataamadja Andreas (2010), "Development of low-cost Fly ash bricks".
9. NoorsaidiMahat (2010), "Comparison Study on Oil Palm Trunk and Oil Palm Fruit Bunch Fibre Reinforced Laterite Bricks", Morden Applied Science vol.4 No. 7 July.
10. Rai M (1992), "Fly ash sand lime bricks in India", Technical Report, 4th CANMET/ACI International Conference on pozoloans, Central Building Research Institute, Roorkee, India.
11. Vimal Kumar, MukeshMathur, Preeti Sharma Kharia "Fly Ash Management: Vision for New Millenium."
12. <http://www.docstoc.com/docs/23116529/Development-of-low-cost-fly-ash-bricks>.
13. <http://flyashindia.com/properties.htm>

Authors:	Kalaivani.P, M. Usharani
Paper Title:	Optimization of Geometrical Parameters of Gate-all-around Tunnel FET for Analog RF Applications
3.	<p>Abstract: This paper presents the gate oxide thickness, gate oxide material, gate material and gate contact alignment variation impact on on-current, off-current, subthreshold swing, RF and stability performance of Gate-all-around Tunnel FET. The RF figures of Merit (FoM) such as cut-off frequency (ft) and maximum oscillation frequency (fmax) along with Stability factor (K) and dc parameters are calculated for different gate oxide thickness, gate oxide material, gate material and gate contact alignment. One parameter is varied at a time to show the resulting fluctuations in the device characteristics. The process variations show significant changes in the device performance and provide information about acceptable variations and design guidelines for GAA-TFET.</p> <p>Keywords: Gate-all-around Tunnel FET, Band-to-band Tunneling, Radio Frequency (RF), Technology Computer Aided Design (TCAD).</p> <p>References:</p> <ol style="list-style-type: none"> 1. Reddick W, Amaratunga GAJ. Silicon surface tunnel transistor. Appl Phys Lett 1995; 67:494. 2. Appenzeller J, Lin Y-M, Knoch J, Avouris Ph. Band-to-band tunneling in carbon nanotube field-effect transistors. Phys Rev Lett 2004; 93(19). 196805-1-4. 3. Boucart K, Ionescu AM. Double-gate tunnel FET with high-k gate dielectric. IEEE Trans Electron Dev 2007; 54(7):1725. 4. Bhuiwarka K, Sedlmaier S, Ludsteck A, Tolksdorf C, Schulze J, Eisele I. Vertical tunnel field-effect transistor. IEEE Trans Electron Dev 2004; 51:279. 5. Zhang Q, Zhao W, Seabaugh A. Low-subthreshold-swing tunnel transistors. IEEE Electron Dev Lett 2006; 27(4):297. 6. Choi WY, Park B-G, Lee JD, Liu T-JK. Tunneling field-effect transistors (TFETs) with subthreshold swing (SS) less than 60 mV/dec. IEEE Electron Dev Lett 2007; 28(8):743. 7. S. Cho, K. R. Kim, B.-G. Park and I. M. Kang. RF performance and small-signal parameter extraction of junctionless silicon nanowire MOSFETs. IEEE Trans. Electron Devices, vol. 58, no. 5, pp. 1388–1396, May 2011. 8. R.Wang, J. Zhuge, R. Huang, Y. Tian, H. Xiao, L. Zhang, C. Li, X.Zhang, and Y.Wang. Analog/RF performance of Si nanowire MOSFETs and the impact of process variation. IEEE Trans. Electron Devices, vol. 54, no. 6, pp. 1288–1294, Jun. 2007. 9. G. Gonzalez. Microwave Transistor Amplifiers Analysis and Design. Englewood Cliffs, NJ: Prentice-Hall, 1997. 10. JM Rollet. Stability and power gain invariants of linear two ports. IRE Trans Circ Theory, Vol.9, 1962, pp. 29-32. 11. C. Sandow, J. Knoch, C. Urban, Q.-T. Zhao, S. Mantl. Impact of electrostatics and doping concentration on the performance of silicon tunnel field-effect transistors. Solid-State Electronics, 53, 1126–1129, 2009.

Authors:	S. B. Shivakumar, Ramesh B. E, Kavitha G. M, Mala M
Paper Title:	Multi Cloud Architecture for Improved User Experience
	<p>Abstract: Use of cloud computing has increased rapidly in many organizations. There are many commercial cloud providers. Each one provides different storage plans & different QOS like time delay, availability. The QOS parameters & plans vary over a period of time. Every time the user cannot move his data from one cloud provider to another for the cost & QOS optimization. Cloud users also have security & auditing requirement for his data in terms who are accessing it & what frequency in which his data is accessed. To address these requirements of the users, we propose a solution using multi cloud architecture. Our solution will reduce the burden on the users in migration & meeting his security challenges. Our platform will provide the best cost optimization for the security & storage requirements of user.</p> <p>Keywords: Cloud computing, single cloud, multi-clouds, cloud storage, data integrity, data intrusion, service availability.</p> <p>References:</p> <ol style="list-style-type: none"> 1. (NIST), http://www.nist.gov/itl/cloud/. 2. I. Abraham, G. Chockler, I. Keidar and D. Malkhi, "Byzantine disk paxos: optimal resilience with Byzantine shared memory", Distributed Computing, 18(5), 2006, pp. 387-408. 3. H. Abu-Libdeh, L. Princehouse and H. Weatherspoon, "RACS: a case for cloud storage diversity", SoCC'10:Proc. 1st ACM symposium on Cloud computing, 2010, pp. 229-240. 4. D. Agrawal, A. El Abbadi, F. Emekci and A. Metwally, "Database Management as a Service: Challenges and Opportunities", ICDE'09:Proc.25th Intl. Conf. on Data Engineering, 2009, pp. 1709-1716. 5. M.A. AlZain and E. Pardede, "Using Multi Shares for Ensuring Privacy in Database-as-a-Service", 44th Hawaii Intl. Conf. on System Sciences (HICSS), 2011, pp. 1-9. 6. Amazon, Amazon Web Services. Web services licensing agreement, October 3, 2006.

7. G. Ateniese, R. Burns, R. Curtmola, J. Herring, L. Kissner, Z. Peterson and D. Song, "Provable data possession at untrusted stores", Proc. 14th ACM Conf. on Computer and communications security, 2007, pp. 598-609.
8. A. Bessani, M. Correia, B. Quaresma, F. André and P. Sousa, "DepSky: dependable and secure storage in a cloud-of-clouds", EuroSys'11: Proc. 6th Conf. On Computer systems, 2011, pp. 31-46.
9. K. Birman, G. Chockler and R. van Renesse, "Toward a cloud computing research agenda", SIGACT News, 40, 2009, pp. 68-80.
10. K.D. Bowers, A. Juels and A. Oprea, "HAIL: A high-availability and integrity layer for cloudstorage", CCS'09: Proc. 16th ACM Conf. on Computer and communications security, 2009, pp.187-198.
11. C. Cachin, R. Haas and M. Vukolic, "Dependable storage in the Intercloud", Research Report RZ,3783, 2010.
12. C. Cachin, I. Keidar and A. Shraer, "Trusting the cloud", ACM SIGACT News, 40, 2009, pp. 81-86.
13. C. Cachin and S. Tessaro, "Optimal resilience for erasure-coded Byzantine distributed storage", DISC: Proc. 19th Intl. Conf. on Distributed Computing, 2005, pp. 497-498.
14. M. Castro and B. Liskov, "Practical Byzantine fault tolerance", Operating Systems Review, 33, 1998, pp. 173-186.
15. G. Chockler, R. Guerraoui, I. Keidar and M. Vukolic, "Reliable distributed storage", Computer, 42, 2009, pp. 60-67.
16. Clavister, "Security in the cloud", Clavister White Paper, 2008.
17. A.J. Feldman, W.P. Zeller, M.J. Freedman and E.W. Felten, "SPORC: Group collaboration using untrusted cloud resources", OSDI, October 2010, pp. 1-14.
18. S.L. Garfinkel, "Email-based identification and authentication: An alternative to PKI?", IEEE Security and Privacy, 1(6), 2003, pp. 20-26.
19. S.L. Garfinkel, "An evaluation of amazon's grid computing services: EC2, S3, and SQS", Technical Report TR-08-07, Computer Science Group, Harvard University, Citeseer, 2007, pp. 1-15.
20. E. Goh, H. Shacham, N. Modadugu and D. Boneh, "SiRiUS: Securing remote untrusted storage", NDSS: Proc. Network and Distributed System Security Symposium, 2003, pp. 131-145.
21. G.R. Goodson, J.J. Wylie, G.R. Ganger and M.K. Reiter, "Efficient Byzantine-tolerant erasure-coded storage", DSN'04: Proc. Intl. Conf. on Dependable Systems and Networks, 2004, pp. 1-22.
22. E. Grosse, J. Howie, J. Ransome, J. Reavis and S. Schmidt, "Cloud computing roundtable", IEEE Security & Privacy, 8(6), 2010, pp. 17-23.
23. J. Hendricks, G.R. Ganger and M.K. Reiter, "Lowoverhead byzantine fault-tolerant storage", SOS'07: Proc. 21st ACM SIGOPS symposium on Operating systems principles, 2007, pp. 73-86.
24. A. Juels and B.S. Kaliski Jr, "PORs: Proofs of retrievability for large files", CCS '07: Proc. 14th ACM Conf. on Computer and communications security, 2007, pp. 584-597.
25. S. Kamara and K. Lauter, "Cryptographic cloud storage", FC'10: Proc. 14th Intl. Conf. on Financial cryptography and data security, 2010, pp. 136-149.
26. H. Krawczyk, M. Bellare and R. Canetti, "HMAC: Keyed-hashing for message authentication", Citeseer, 1997, pp. 1-11.
27. P. Kuznetsov and R. Rodrigues, "BFTW 3: why? when? where? workshop on the theory and practice of byzantine fault tolerance", ACM SIGACT News, 40(4), 2009, pp. 82-86.
28. L. Lamport, R. Shostak and M. Pease, "The Byzantine generals problem", ACM Transactions on Programming Languages and Systems, 4(3), 1982, pp. 382-401.
29. P.A. Loscocco, S.D. Smalley, P.A. Muckelbauer, R.C. Taylor, S.J. Turner and J.F. Farrell, "The inevitability of failure: The flawed assumption of security in modern computing environments", Citeseer, 1998, pp. 303-314.
30. P. Mahajan, S. Setty, S. Lee, A. Clement, L. Alvisi, M. Dahlin and M. Walfish, "Depot: Cloud storage with minimal trust", OSDI'10: Proc. of the 9th USENIX Conf. on Operating systems design and implementation, 2010, pp. 1-16.
31. U. Maheshwari, R. Vingralek and W. Shapiro, "How to build a trusted database system on untrusted storage", OSDI'00: Proc. 4th Conf. On Symposium on Operating System Design & Implementation, 2000, p. 10.
32. D. Malkhi and M. Reiter, "Byzantine quorum systems", Distributed Computing, 11(4), 1998, pp. 203-213.
33. J.-P. Martin, L. Alvisi and M. Dahlin, "Minimal byzantine storage", DISC '02: Proc. of the 16th Intl. Conf. on Distributed Computing, 2002, pp. 311-325.
34. H. Mei, J. Dawei, L. Guoliang and Z. Yuan, "Supporting Database Applications as a Service", ICDE'09: Proc. 25th Intl. Conf. on Data Engineering, 2009, pp. 832-843.
35. R.C. Merkle, "Protocols for public key cryptosystems", IEEE Symposium on Security and Privacy, 1980, pp. 122-134.
36. E. Mykletun, M. Narasimha and G. Tsudik, "Authentication and integrity in outsourced databases", ACM Transactions on Storage (TOS), 2, 2006, pp. 107-138.
37. C. Papamanthou, R. Tamassia and N. Triandopoulos, "Authenticated hash tables", CCS '08: Proc. 15th ACM Conf. on Computer and communications security, 2008, pp. 437-448.
38. M. Pease, R. Shostak and L. Lamport, "Reaching agreement in the presence of faults", Journal of the ACM, 27(2), 1980, pp. 228-234.
39. R. Perez, R. Sailer and L. van Doorn, "vTPM: virtualizing the trusted platform module", Proc. 15th Conf. on USENIX Security Symposium, 2006, pp. 305-320.
40. RedHat, <https://rhn.redhat.com/errata/RHSA-2008-0855.html>.
41. T. Ristenpart, E. Tromer, H. Shacham and S. Savage, "Hey, you, get off of my cloud: exploring information leakage in third-party compute clouds", CCS'09: Proc. 16th ACM Conf. on Computer and communications security, 2009, pp. 199-212.
42. F. Rocha and M. Correia, "Lucy in the Sky without Diamonds: Stealing Confidential Data in the Cloud", Proc. 1st Intl. Workshop of Dependability of Clouds, Data Centers and Virtual Computing Environments, 2011, pp. 1-6.
43. N. Santos, K.P. Gummadi and R. Rodrigues, "Towards trusted cloud computing", USENIX Association, 2009, pp. 3-3.
44. D. Sarno, "Microsoft says lost sidekick data will be restored to users", Los Angeles Times, October 2009.
45. F. Schneider and L. Zhou, "Implementing trustworthy services using replicated state machines", IEEE Security and Privacy, 3(5), 2010, pp. 151-167.
46. G. Brunette and R. Mogull (eds), "Security guidance for critical areas of focus in cloud computing", CloudSecurityAlliance, 2009.
47. A. Shamir, "How to share a secret", Communications of the ACM, 22(11), 1979, pp. 612-613. [48] A. Shraer, C. Cachin, A. Cidon, I. Keidar, Y. Michalevsky and D. Shaket, "Venus: Verification for untrusted cloud storage", CCSW'10: Proc. ACM workshop on Cloud computing security workshop, 2010, pp. 19-30.
48. S. Subashini and V. Kavitha, "A survey on security issues in service delivery models of cloud computing", Journal of Network and Computer Applications, 34(1), 2011, pp. 1-11.
49. Sun, http://blogs.sun.com/gbrunett/entry/amazon_s3_silent_data_corruption.

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13-17

	<p>51. H. Takabi, J.B.D. Joshi and G.-J. Ahn, "Security and Privacy Challenges in Cloud Computing Environments", IEEE Security & Privacy, 8(6),2010, pp. 24-31.</p> <p>52. M. Van Dijk and A. Juels, "On the impossibility of cryptography alone for privacy-preserving cloud computing", HotSec'10: Proc. 5thUSENIX Conf. on Hot topics in security, 2010, pp.1-8.</p> <p>53. J. Viega, "Cloud computing and the common man", Computer, 42, 2009, pp. 106-108.</p> <p>54. M. Vukolic, "The Byzantine empire in the intercloud", ACM SIGACT News, 41,2010, pp.105-111.</p> <p>55. C. Wang, Q. Wang, K. Ren and W. Lou, "Ensuring data storage security in cloud computing", ARTCOM'10: Proc. Intl. Conf. on Advances in Recent Technologies in Communication and Computing, 2010, pp. 1-9.</p>											
5.	<table border="1"> <tr> <td data-bbox="124 293 331 338">Authors:</td> <td data-bbox="331 293 1422 338">Kartheek B. V, Manojkumar S. B, M. B. Anandaraju</td> </tr> <tr> <td data-bbox="124 338 331 398">Paper Title:</td> <td data-bbox="331 338 1422 398">Design and Implementation of Modified Adaptive Filtering Algorithm for Noise Cancellation in Speech Signal on FPGA for Minimum Resource Usage</td> </tr> <tr> <td colspan="2" data-bbox="124 398 1422 674"> <p>Abstract: In recent years FPGA systems are replacing dedicated Programmable Digital Signal Processor (PDSP) systems due to their greater flexibility and higher bandwidth, resulting from their parallel architecture. This paper presents the applicability of a FPGA system for speech processing. Here adaptive filtering technique is used for noise cancellation in speech signal. Least Mean Squares (LMS), one of the widely used algorithms in many signals processing environment, is implemented for adaption of the filter coefficients. The cancellation system is implemented in VHDL and tested for noise cancellation in speech signal. The simulation of VHDL design of adaptive filter is performed and analysed on the basis of Signal to Noise ratio (SNR) and Mean Square Error (MSE).When compared with previous methodology this paper achieves nearly 93% of accuracy.</p> </td> </tr> <tr> <td colspan="2" data-bbox="124 674 1422 734"> <p>Keywords: Adaptive Filter, LMS Algorithm, Active Noise cancellation, VHDL Design, SNR, MSE.</p> </td> </tr> <tr> <td colspan="2" data-bbox="124 734 1422 1041"> <p>References:</p> <ol style="list-style-type: none"> 1. L. I. Eriksson, M. C. Allie, and C. D. Bremigan, "Active Noise Control using Adaptive digital Signal Processing " in Proc. ICASSP , New York, 2004 pp. 2594-2597 2. Dimitris G. Manolakis, Vinay K. Ingle, and Stephen M. Kogon, "Statistical and Adaptive Signal Processing", McGraw- Hill, 2000. 3. Simon Haykin. "Adaptive Filters Theory" Pearson Education, x 10' 2008. 3.5 4 4. R. Vijaykumar, P. T. Vanathi & P. Kanagasapabathy, "Modified Adaptive Filtering Algorithm for Noise Cancellation in Speech Signals" Elektronika ISSN 1392 -1215 2007. No. 2(74) 5. C. Mosquera, I.A. Gomez "Adaptive Filters for Active Noise Control" , Sixth international congress on sound and vibration Copenhagen, Denmark 6. Colin H. Hansen" Understanding Active Noise Cancellation " IOS Press -2002 </td> </tr> </table>	Authors:	Kartheek B. V, Manojkumar S. B, M. B. Anandaraju	Paper Title:	Design and Implementation of Modified Adaptive Filtering Algorithm for Noise Cancellation in Speech Signal on FPGA for Minimum Resource Usage	<p>Abstract: In recent years FPGA systems are replacing dedicated Programmable Digital Signal Processor (PDSP) systems due to their greater flexibility and higher bandwidth, resulting from their parallel architecture. This paper presents the applicability of a FPGA system for speech processing. Here adaptive filtering technique is used for noise cancellation in speech signal. Least Mean Squares (LMS), one of the widely used algorithms in many signals processing environment, is implemented for adaption of the filter coefficients. The cancellation system is implemented in VHDL and tested for noise cancellation in speech signal. The simulation of VHDL design of adaptive filter is performed and analysed on the basis of Signal to Noise ratio (SNR) and Mean Square Error (MSE).When compared with previous methodology this paper achieves nearly 93% of accuracy.</p>		<p>Keywords: Adaptive Filter, LMS Algorithm, Active Noise cancellation, VHDL Design, SNR, MSE.</p>		<p>References:</p> <ol style="list-style-type: none"> 1. L. I. Eriksson, M. C. Allie, and C. D. Bremigan, "Active Noise Control using Adaptive digital Signal Processing " in Proc. ICASSP , New York, 2004 pp. 2594-2597 2. Dimitris G. Manolakis, Vinay K. Ingle, and Stephen M. Kogon, "Statistical and Adaptive Signal Processing", McGraw- Hill, 2000. 3. Simon Haykin. "Adaptive Filters Theory" Pearson Education, x 10' 2008. 3.5 4 4. R. Vijaykumar, P. T. Vanathi & P. Kanagasapabathy, "Modified Adaptive Filtering Algorithm for Noise Cancellation in Speech Signals" Elektronika ISSN 1392 -1215 2007. No. 2(74) 5. C. Mosquera, I.A. Gomez "Adaptive Filters for Active Noise Control" , Sixth international congress on sound and vibration Copenhagen, Denmark 6. Colin H. Hansen" Understanding Active Noise Cancellation " IOS Press -2002 		18-21
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6.	<table border="1"> <tr> <td data-bbox="124 1041 331 1086">Authors:</td> <td data-bbox="331 1041 1422 1086">Archana Bhat</td> </tr> <tr> <td data-bbox="124 1086 331 1131">Paper Title:</td> <td data-bbox="331 1086 1422 1131">Analysis of Ripple Content in DC-DC Converters</td> </tr> <tr> <td colspan="2" data-bbox="124 1131 1422 1467"> <p>Abstract: The DC-DC converter has the major applications in LED, lamp flashers and computers, also in industrial applications like batteries, solar cells, drives, motors.etc. In this propose study the comparison of two switches in DC-DC Converters are taken, which are MOSFET, IGBT. DC-DC converters which are used in proposed method is buck and buck-boost converter. Outputs parameters are output voltage, output current, capacitor voltage, inductor current, ripple content in the output respectively.The simulation has done by using P-Spice software using Cadence tool, and then implemented using hardware components. Variation in the inductance and capacitance variation is done. By this analysis the dynamic response, steady state response, ripple and variation in the output can be found. By comparing hardware results and simulation results the better switch among them can be found. The proposed method consists of designing, simulation and stability analysis in transient state as well as in steady state. The best switch is used in dc-dc converter.</p> </td> </tr> <tr> <td colspan="2" data-bbox="124 1467 1422 1527"> <p>Keywords: Dynamic state, Steady state, Ripple content, Buck converter, Buck-boost converter.</p> </td> </tr> <tr> <td colspan="2" data-bbox="124 1527 1422 2004"> <p>References:</p> <ol style="list-style-type: none"> 1. Application Note Series on "Understanding Linear Power Supply Specifications" 2. M H Rashid " Power Electronic Circuits And Devices", Power Electronics, Sep 1, 2003, No.908, pp. 96-116 3. Richard Wies, Bipin Satavalekar, And Ashish Agrawal "Power Electronic Circuits And Controls", Power Electronics, 2001, pp. 9-10 4. V. Ramanarayanan "Course Material on Switched Mode Power Conversion", Power electronics, 2002, vol.38, no. 104, pp. 109-138 5. Sung-Roc Jang, Hong-Je Ryoo, GennadiGoussev, and GeunHie Rim "Comparative Study of MOSFET and IGBT for High Repetitive Pulsed Power Modulators," Plasma Science, December 2011, pp. 1-8 6. Tulbure, D. Turschner, M. Abrudean, E. Ceuca, and R. Ormenisan, "Experimental comparation of switching with IGBT and MOSFET," in Proc. IEEE AQT, May 28–30, 2010, vol. 2, pp. 1–5 7. Jianjing WANG, Henry Shu-hung CHUNG "Characterization and Experimental Assessment of the Effects of Parasitic Elements on the MOSFET Switching Performance" Power Electronics, 2011, pp. 1-57 8. Daniel W. Hart "Power Electronics" Power Electronics, 2011, pp. 197-226 9. Muhammad H. Rashid "Power Electronic Devices", Power Electronics, Third Edition 2007, pp. 1-28 10. Muhammad H. Rashid "Power Electronics Handbook", Power Electronics, 2001, pp. 63-69 11. Agrawal, J. P., "Power Electronics Systems: Theory and Design", Prentice-Hall, Upper Saddle River, NJ, 2001, chapter. 6 12. Mohan, N., Undeland, T. M.,and Robbins, W. P., "Converters, Applications, and Design", Power Electronics, Second edition., John Wiley & Sons, New York, 1995, chapter. 7 13. Roy W. Goody, " DC and AC Circuits", OrCAD PSpice for Windows Volume 1 Englewood Cliffs, NJ: Prentice-Hall, 2000 14. M. H. Rashid, "SPICE for power electronics and electric power", Power electronics,Second edition,2003, pp.10-18 </td> </tr> </table>	Authors:	Archana Bhat	Paper Title:	Analysis of Ripple Content in DC-DC Converters	<p>Abstract: The DC-DC converter has the major applications in LED, lamp flashers and computers, also in industrial applications like batteries, solar cells, drives, motors.etc. In this propose study the comparison of two switches in DC-DC Converters are taken, which are MOSFET, IGBT. DC-DC converters which are used in proposed method is buck and buck-boost converter. Outputs parameters are output voltage, output current, capacitor voltage, inductor current, ripple content in the output respectively.The simulation has done by using P-Spice software using Cadence tool, and then implemented using hardware components. Variation in the inductance and capacitance variation is done. By this analysis the dynamic response, steady state response, ripple and variation in the output can be found. By comparing hardware results and simulation results the better switch among them can be found. The proposed method consists of designing, simulation and stability analysis in transient state as well as in steady state. The best switch is used in dc-dc converter.</p>		<p>Keywords: Dynamic state, Steady state, Ripple content, Buck converter, Buck-boost converter.</p>		<p>References:</p> <ol style="list-style-type: none"> 1. Application Note Series on "Understanding Linear Power Supply Specifications" 2. M H Rashid " Power Electronic Circuits And Devices", Power Electronics, Sep 1, 2003, No.908, pp. 96-116 3. Richard Wies, Bipin Satavalekar, And Ashish Agrawal "Power Electronic Circuits And Controls", Power Electronics, 2001, pp. 9-10 4. V. Ramanarayanan "Course Material on Switched Mode Power Conversion", Power electronics, 2002, vol.38, no. 104, pp. 109-138 5. 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8.	<table border="1" data-bbox="119 1014 1422 1108"> <tr> <td data-bbox="119 1014 331 1059">Authors:</td> <td data-bbox="331 1014 1422 1059">Parlekar Pinal Narsinhbhai, Mary Grace Shajan</td> </tr> <tr> <td data-bbox="119 1059 331 1108">Paper Title:</td> <td data-bbox="331 1059 1422 1108">Data Rate Enhancement For Cell Edge Users In A Wireless Cellular Network</td> </tr> </table> <p>Abstract: Users at the cell edge in a cellular network suffer from low data rate due to low SINR Cooperative transmission schemes which are used in wireless networks to improve the spectral efficiency. Cooperative transmission schemes are used in wireless networks to improve the spectral efficiency and Throughput. It is found that the throughput for cell edge users degraded because of interference from other cell. The object of this dissertation is to study the various techniques for improve the performance of cell edge users.</p> <p>The techniques to be studied are:</p> <ol style="list-style-type: none"> 1. Cooperative MIMO 2. Simple cooperation 3. Cooperation with 1-bit phase feedback. <p>The results shows that the performance of selective cooperation is better then without cooperation and with cooperation and the performance of Simple Cooperation is better then Cooperative MIMO and Cooperation with 1-bit phase feedback.</p> <p>Keywords: Spectral Efficiency, Data Rate, Cell Edge User, Capacity.</p> <p>References:</p> <ol style="list-style-type: none"> 1. Sendonaris, E. Erkip and B. Aazhang, "User Cooperation Diversity - Part I System Descriptiuon," IEEE Transactions on Communications, vol. 51, no. 11, pp.1927-1938, Nov 2003. 2. J. N. Laneman, G. W. Wornell and D. N. C. Tse,"An efficient protocol for realizing cooperative diversity in wireless networks," in Proc. IEEE ISIT 2001, p.294, Washington, D. C., June 2001. 3. A. Nosratinia, T. E. Hunter and A. Hedayat, "Cooperative Communication in Wireless Networks," IEEE Communications Magazine, pp. 74-80, Oct 2004. 4. G. J. Foschini, H. Huang, K. Karakayali, R. A. Valenzuela and S. Venkatesan, "The Value of Coherent Base Station Coordination", Proceeding of 2005 CISS, The John Hopkins University, March 16-18, 2005. 5. T. Tamaki, K. Seong and J. M. Cioffi,"Downlink MIMO Systems Using Cooperation among Base Stations in a Slow Fading Channel", Proceeding of IEEE International Conf. on Communications 2007, pp. 4728-4733, June 2007. 6. J. G. Andrews, W. Choi and R. W. Heath Jr, "Overcoming Interference in Spatial Multiplexing MIMO Cellular Networks", IEEE Wireless Communications Magazine, vol. 14, no. 6, pp.95-104, Dec 2007. 7. "CollaborativeMIMO",http://www.ieee802.org/16/tgm/contrib/C80216m-07-244r1.doc 8. J. Akhtar and D. Gesbert, "Extending Orthogonal Block Codes with partial feedback", IEEE Transactions on Wireless Communications, vol.3, no. 6, pp.1959-1962, Nov 2004. 9. H. Holma and A. Toskala, HSDPA/HSUPA for UMTS: High Speed Radio Access for Mobile Communications. John Wiley & Sons, 2006. 10. Urban Transmission Loss Models for Mobile Radio in the 900 and 1800 MHz bands, EURO-COST 231 Std. 11. "Interference Mitigation Using Precoded Multi-Cell MIMO In The Downlink", IEEE 802.16 Broadband Wireless Access Working Group Http://IEEE802.Org/16. 12. "Multi-Cell MIMO Schemes For IEEE 802.16m", IEEE 802.16 Broadband Wireless Access Working Group Http://IEEE802.Org/16, IEEE C802.16m-08/632. 13. H. Holma and A. Toskala, HSDPA/HSUPA for UMTS: High Speed Radio Access for Mobile Communications. John Wiley & Sons, 2006. 	Authors:	Parlekar Pinal Narsinhbhai, Mary Grace Shajan	Paper Title:	Data Rate Enhancement For Cell Edge Users In A Wireless Cellular Network	32-35
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