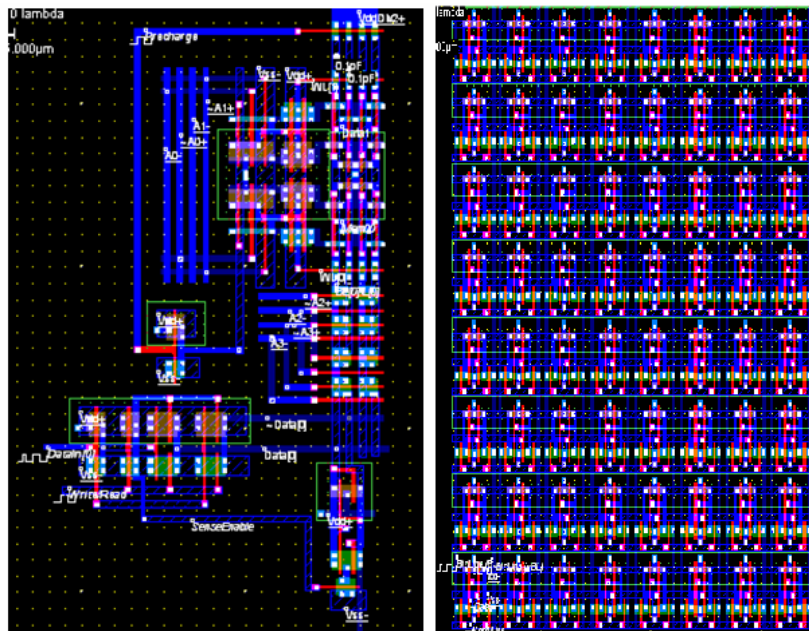




Leonardo Electronic Journal of Practices and Technologies

Issue 19

*July-December
2011*



ISSN 1583-1078



*AcademicDirect
Publishing House*

Leonardo Electronic Journal
of Practices and Technologies

ISSN 1583-1078

Issue 19

July-December

2011

Leonardo Electronic Journal of Practices and Technologies

<http://lejpt.academicdirect.org>

Edited by
AcademicDirect Publishing House

Tel.: 0766-239997

Chief redactor
Lorentz JÄNTSCHI

E-mail: lori@lejpt.academicdirect.org

Editorial board

- Mircea SAVATTI, Prof. Ph. D. Eng. (agriculture),
A.S.V.M.U. Cluj-Napoca, RO
- Gheorghe LAZEA, Prof. Ph. D. Eng. (automatics),
T. Univ., Cluj-Napoca, RO
- Elena Maria PICĂ, Prof. Ph. D. Eng. (chemistry),
T. Univ., Cluj-Napoca, RO
- Elena ZAHARIEVA-STOJANOVA, Asist. Prof. Ph. D. Eng. (computer sciences),
T. Univ., Gabrovo, BG
- Ivan SIMEONOV SIMEONOV, Asist. Prof. Ph. D. Eng., (computer systems),
T. Univ., Gabrovo, BG
- Rosen STEFANOV IVANOV, Asist. Prof. Ph. D. Eng., (computer technologies),
T. Univ., Gabrovo, BG
- Tarek BOUKTIR, Prof. Ph. D. Eng., (engineering),
C.U. d'Oum El Bouaghi, DZ
- Tiberiu RUSU, Prof. Ph. D. Eng., (environment),
T. Univ., Cluj-Napoca, RO
- Radu Emil SESTRĂȘ, Prof. Ph. D. Eng., (horticulture),
A. S. V. M. Univ., Cluj-Napoca, RO
- Lorentz JÄNTSCHI, Assoc. Prof. Ph. D. Sci. Eng., (informatics),
T. Univ., Cluj-Napoca, RO
- Ștefan ȚIGAN, Prof. Ph. D. Sci., (mathematics),
"I. H." M. P. Univ. Cluj-Napoca, RO
- Anca BUTNARU, Asist. Prof. Ph. D. Med., (medicine),
"I. H." M. P. Univ. Cluj-Napoca, RO
- Eugen CULEA, Prof. Ph. D. Sci., (physics),
T. Univ., Cluj-Napoca, RO
- Amarendra Narayan MISRA, Prof. Ph. D. Sci., (biotechnology),
F.M.U. Orissa, IN

Contents

1. **Small Scale Foundries in Ghana: The Challenges**, by Anthony ANDREWS and Emmanuel GIKUNOOp. 1-12
2. **A New Intelligent Scheme for Simultaneous Cold Junction Compensation and Linearization of Thermocouples**, by Debangshu DEY and Sugata MUNSHIp. 13-28
3. **Effect of Addition of Calcium Nitrate on Selected Properties of Concrete Containing Volcanic Ash**, by Ezekiel Babatunde OGUNBODE and Ibrahim Ogiri HASSAN.....p.29-38
4. **Design and Fabrication of a Wear Testing Machine**, by Amal Ebrahim NASSAR and Eman Ebrahim NASSAR.....p. 39-48
5. **Seasonal Sensible Thermal Energy Storage Solutions**, by Lavinia Gabriela SOCACIU.....p. 49-68
6. **Development of Finite Element Response Model for Mechanistic - Empirical Design of Flexible Pavement**, by Mujtaba A. AHMED, Hassan S. OTUOZE, and Abdulfatai A. MURANA.....p. 69-84
7. **Effects of Moisture Content on the Foundry Properties of Yola Natural Sand**, by Paul Aondona IHOM, Johnson AGUNSOYE, Emmanuel Eric ANBUA, Joy OGBODOp. 85-96
8. **Effects of Mould and Pouring Temperatures on the Ultimate Tensile Strength of Aluminium Alloy Sand Castings: An ANOVA Approach**, by John O. OJI, Buliamin KAREEM, and Nosa IDUSUYI ...p. 97-108
9. **Comparison of Processor Performance of SPECint2006 Benchmarks of some Intel Xeon Processors**, by Abdul Kareem PARCHUR and Ram Asaray SINGHp. 109-117
10. **Stress Effects on Microstructure and Failure Morphology of Low Carbon Steel Sheet**, by Nathaniel Onyeka ONURISI and Oluleke OLUWOLEp. 118-132
11. **VLSI System Implementation of 200 MHz, 8-bit, 90nm CMOS Arithmetic and Logic Unit (ALU) Processor Controller**, by Fazal NOORBASHA.....p. 133-143

Leonardo Electronic Journal of Practices and Technologies

<http://lejpt.academicdirect.org>

ISSN 1583-1078

AcademicDirect Publishing House

<http://ph.academicdirect.org>

- 12. Contiguous Pile Wall as a Deep Excavation Supporting System**, by Venkata Ramasubbarao GODAVARTHI, Dineshbabu MALLAVALLI, Ramya PEDDI, Neelesh KATRAGADDA, and Prudhvikrishna MULPURU.p. 144-160
- 13. Consequences and Limitations of Conventional Computers and their Solutions through Quantum Computers**, by Nilesh BARDE, Deepak THAKUR, Pranav BARDAPURKAR, and Sanjaykumar DALVI.....p. 161-171
- 14. Effect of Carbonization Temperature on Wear Rate Behavior of Rice Husk Ash Reinforced Epoxy Composites**, by Francis Uchenna OZIOKO.....p. 172-182