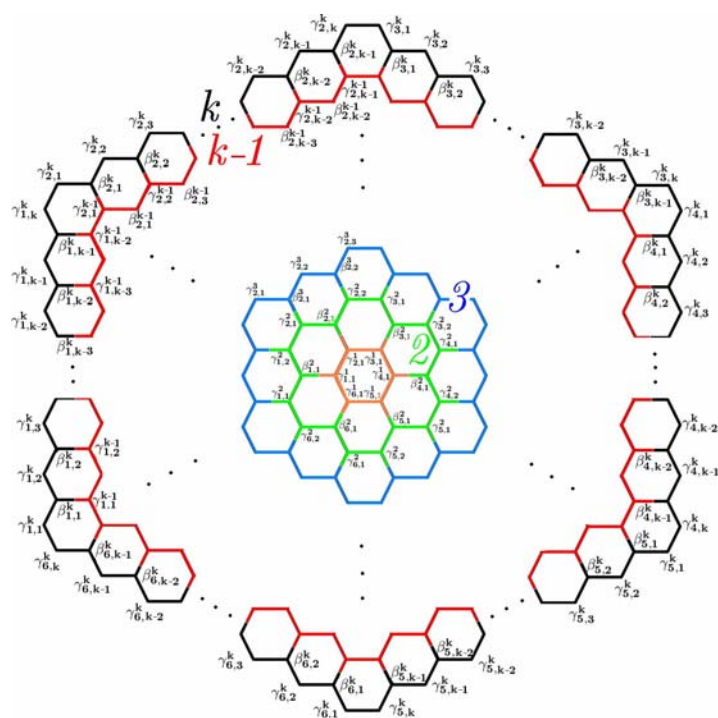


Leonardo Electronic Journal of Practices and Technologies

Issue 27

*July-December
2015*



ISSN 1583-1078



*AcademicDirect
Publishing House*

Leonardo Electronic Journal of Practices and Technologies

ISSN 1583-1078

Issue 27

July-December

2015

Leonardo Electronic Journal of Practices and Technologies

<http://lejpt.academicdirect.org>

Edited by
AcademicDirect

Tel.: +4-0766-239997

Editor-in-chief
Lorentz JÄNTSCHI

E-mail: lori@lejpt.academicdirect.org

Executive editor
Sorana Daniela BOLBOACĂ

E-mail: lejptacademicdirect@gmail.com

Editorial assistants
Bernadette Eموke TELEKY
Lavinia Lorena PRUTEANU

E-mail: lejptacademicdirect@gmail.com

Editorial board

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

Gheorghe LAZEA, Prof. Ph. D. Eng., (automatics),
T. Univ., Cluj-Napoca, RO

Mădălina Ana VĂLEANU, Asist. Prof. Ph. D. Sci., (informatics),
'IH'-MPU Cluj-Napoca, RO

Stefan ȚIGAN, Prof. Ph. D. Sci., (mathematics),
'IH'-MPU Cluj-Napoca, RO

Eugen CULEA, Prof. Ph. D. Sci., (physics),
T. Univ., Cluj-Napoca, RO

Elena Maria PICA, Prof. Ph. D. Sci., (chemistry),
T. Univ., Cluj-Napoca, RO

Meenu VIKRAM, Res. Assoc. PhD. Sci., (biology),
Texas A&M University, USA

Amarendra Narayan MISRA, Prof. PhD. Sci., (biotechnology),
Texas A&M University, USA

Anca BUTNARU, Asist. Prof. Ph. D. Med., (medicine),
'IH'-MPU Cluj-Napoca, RO

Tiberiu RUSU, Prof. Ph. D. Eng., (environment),
T. Univ., Cluj-Napoca, RO

Tarek BOUKTIR, Prof. Ph. D. Eng., (engineering),
C.U. d'Oum El Bouaghi, DZ

Mircea SAVATTI, Prof. Ph. D. Eng., (agriculture),
ASVMU Cluj-Napoca, RO

Radu Emil SESTRĂȘ, Prof. PhD. Eng., (horticulture),
ASVMU Cluj-Napoca, RO

Contents

1. **Novel compact asymmetrical fractal aperture Notch band antenna**, by Duvuri S. RAMKIRAN, Boddapati T.P. MADHAV, Annam M. PRASANTH, Naga S. HARSHA, Vishnu VARDHAN, Karimikonda AVINASH, Maddipati N. CHAITANYA, and Usirika S. NAGASAIp. 1-12
2. **Assessment of dynamic modulus of high density polypropylene waste fiber reinforcement in asphalt concrete**, by Hassan S. OTUOZE, Yusuf D. AMARTEY, Manasseh JOEL, Raheem O. MOMOH, Abdulmumin A. SHUAIBU, and Kudirat O. YUSUFp. 13-30
3. **Novel Koch fractal circularly polarized micro strip antenna for global positioning system application**, by Kavalipati P. SRINIVAS, Boddapati T.P. MADHAV, Dintakurthi S.K. TEJA, Maddela V.K. SUPREETH, Nadendla S. TEJA, and A. CHARITHAp. 31-40
4. **Effect of carburizing temperature and time on mechanical properties of AISI/SAE 1020 steel using carbonized palm kernel shell**, by Olanike M. OLUWAFEMI, Samuel R. OKE, Iyiola O. OTUNNIYI, and Fatai O. ARAMIDEp. 41-56
5. **Chlorococcalean microalgae Ankistrodesmus convolutes biodiesel characterization with Fourier transform-infrared spectroscopy and gas chromatography mass spectroscopy techniques**, by Swati SONAWANE, Sanjaykumar DALVI, and Raghunath POKHARKAR.....p. 57-66
6. **Timeline of bio-hydrogen production by anaerobic digestion of biomas**, by Bernadette E. TELEKY, Mugur C. BĂLAN, and Marcell NIKOLAUSZp. 67-80
7. **Development of charge calculation program for target steel in induction furnace**, by Saliu O. SEIDU and Adetunji ONIGBAJUMO.....p. 81-97
8. **Investigating the effect of antioxidant extract from orange peel on lipids oxidation**, by Uduak G. AKPAN, Eyitayo A. AFOLABI, and Martins O. ADEJOHp. 98-106
9. **Evaluation of the mechanical properties and corrosion behaviour of coconut shell ash reinforced aluminium (6063) alloy composites**, by

- Oluyemi O. DARAMOLA, Adeolu A. ADEDIRAN, and Ayodele T. FADUMIYE.....p. 107-119
10. **Corrosion behaviour of some conventional stainless steels in electrolyzing process**, by Amal NASSAR and Eman NASSAR.....p. 120-130
 11. **Development of optimum conditions for modification of Kpautagi clay for application in petroleum refinery wastewater treatment**, by Matthew A. ONU, Joseph O. OKAFOR, Abdusalami S. KOVO, and Yahaya S. MOHAMMADp. 131-137
 12. **Ultra low voltage and low power Static Random Access Memory design using average 6.5T technique**, by Nagalingam RAJESWARAN, Tenneti MADHU, Bini JOY, and Ruth A. SHIRLEYp. 138-154
 13. **Fourth Zagreb index of Circumcoronene series of Benzenoid**, by Mohammad R. FARAHANI and Rajesh M.R. KANNAp. 155-161
 14. **Investigation of the physical properties of tiles produced with Otukpo clay**, by David O. PATRICK, Haruna M. KEFAS, Yakubu M. JOHN, and Victor I. AMEH.....p. 162-176
 15. **Radial basis function neural networks model to estimate global solar radiation in semi-arid area**, by Abdelaziz RABEHI, Mawloud GUERMOUI, Djelloul DJAFER, and Mohamed ZAIANI.....p. 177-184
 16. **Possibilities of implementation of synchronous Ethernet in popular Ethernet version using timing and interference constraints**, by Seetaiah KILARU, Bhargava PULI, and Shwetha PULI.....p. 185-196
 17. **Suitability of Nigerian Portland-limestone cement grades for building's concrete structural members in various exposure classes**, by Kazeem K. ADEWOLE, Wasiu O. AJAGBE, and Folake O. AKINTAYOp. 196-213