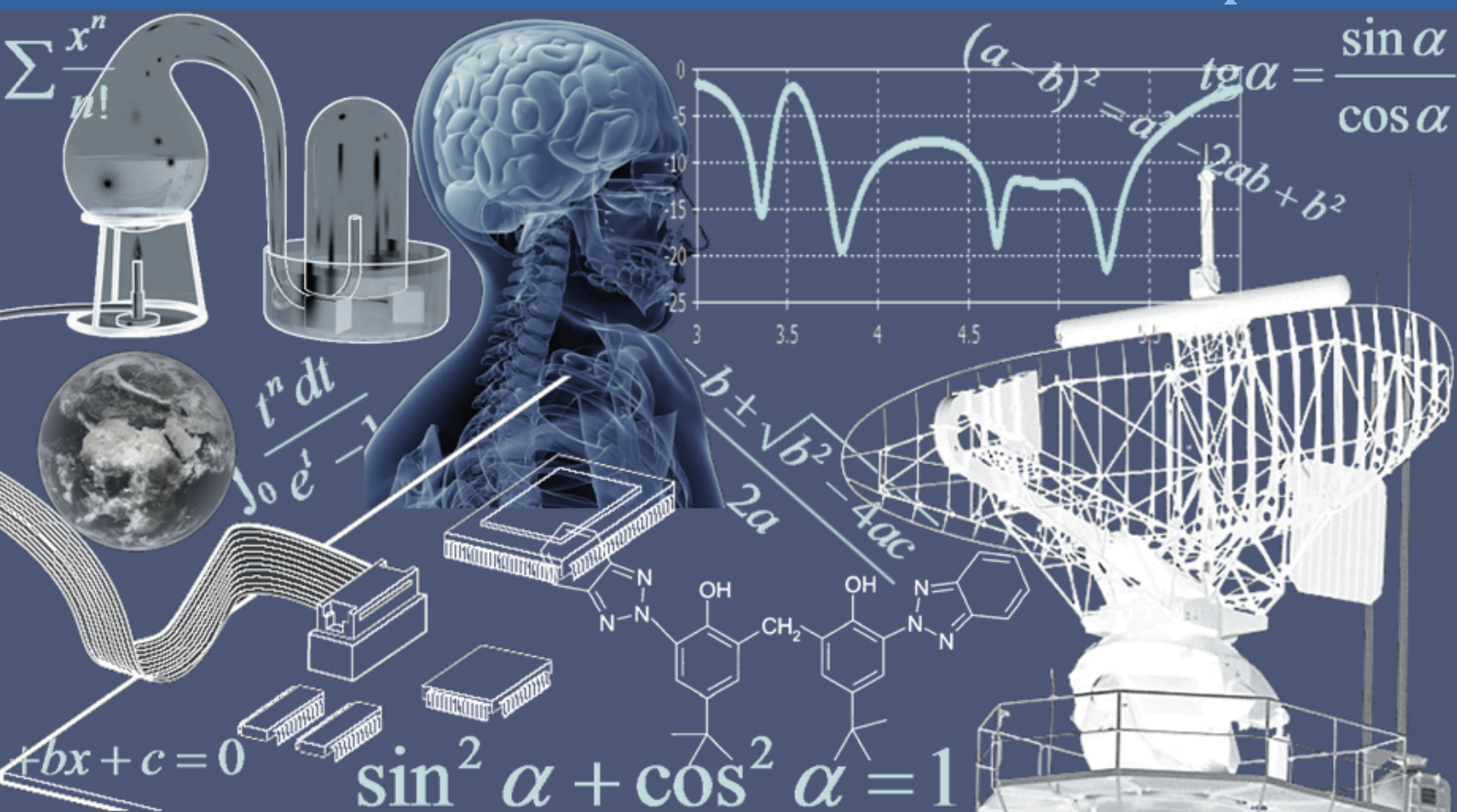


INTERNATIONAL JOURNAL OF INNOVATION AND APPLIED STUDIES

Vol. 20 N. 1 April 2017



International Peer Reviewed Monthly Journal



International Journal of Innovation and Applied Studies

International Journal of Innovation and Applied Studies (ISSN: 2028-9324) is a peer reviewed multidisciplinary international journal publishing original and high-quality articles covering a wide range of topics in engineering, science and technology. IJIAS is an open access journal that publishes papers submitted in English, French and Spanish. The journal aims to give its contribution for enhancement of research studies and be a recognized forum attracting authors and audiences from both the academic and industrial communities interested in state-of-the art research activities in innovation and applied science areas, which cover topics including (but not limited to):

Agricultural and Biological Sciences, Arts and Humanities, Biochemistry, Genetics and Molecular Biology, Business, Management and Accounting, Chemical Engineering, Chemistry, Computer Science, Decision Sciences, Dentistry, Earth and Planetary Sciences, Economics, Econometrics and Finance, Energy, Engineering, Environmental Science, Health Professions, Immunology and Microbiology, Materials Science, Mathematics, Medicine, Neuroscience, Nursing, Pharmacology, Toxicology and Pharmaceuticals, Physics and Astronomy, Psychology, Social Sciences, Veterinary.

IJIAS hopes that Researchers, Graduate students, Developers, Professionals and others would make use of this journal publication for the development of innovation and scientific research. Contributions should not have been previously published nor be currently under consideration for publication elsewhere. All research articles, review articles, short communications and technical notes are pre-reviewed by the editor, and if appropriate, sent for blind peer review.

Accepted papers are available freely with online full-text content upon receiving the final versions, and will be indexed at major academic databases.

Editorial Advisory Board

Amir Samimi, Islamic Azad University, Iran
Mahsa Ja'fari, Department of Chemical Engineering, Abadan Faculty of Petroleum, Petroleum University of Technology, Abadan, Iran
Alin Velea, Paul Scherrer Institute, Switzerland
Kamyar Hasanzadeh, Aalto University, Finland
Ogbonnaya N. Chidibere, University of East Anglia, United Kingdom
Oumair Naseer, University of Warwick, United Kingdom
Wei Zheng, University of Texas Health Science Center at San Antonio, USA
Hu Zhao, University of Southern California, USA
Haijian Shi, Kal Krishnan Consulting Services, Inc, USA
Syed Ainul Abideen, University of Bergen, Norway
Fabio De Felice, University of Cassino and Southern Lazio, Italy
Giovanni Leonardi, Mediterranea University of Reggio Calabria, Italy
Siham El Gouzi, Instituto Andaluz de Ciencias de la Tierra, Spain
Mohamed KOSSAÏ, European Business School EBS Paris, France
Mustafa Batuhan AYHAN, Marmara University, Turkey
Andrzej Klimczuk, Warsaw School of Economics, Poland
Corinthias P. M. Sianipar, Tokyo University of Science, Japan
Irfan Jamil, Sinohydro Engineering, China
Sukumar Senthilkumar, Chonbuk National University, South Korea
Bratu (Simionescu) Mihaela, Bucharest University of Economic Studies, Romania
Mirela Maria Codescu, National Institute for R&D in Electrical Engineering ICPE-CA, Romania
Milen Zamfirov, St. Kliment Ohridski Sofia University, Bulgaria
Svetoslava Saeva, Neofit Rilski South-West University, Bulgaria
Dimitris Kavroudakis, University of the Aegean, Greece
Vaitsa Giannouli, Aristotle University of Thessaloniki, Greece
Nataša Pomazalová, Mendel University in Brno, Czech Republic
Hazem M. Shaheen, Damanhour University, Egypt
Shalini Jain, Manipal University Jaipur, India
Amin Julia, National University of Malaysia, Malaysia
Mahdi Moharrampour, Islamic Azad University, Buin zahra Branch, Iran
Ricardo Rodriguez, Technological University of Ciudad Juarez, Mexico
Yuniel E. Proenza Arias, Universidad de las Ciencias Informáticas, Cuba
Elizabeth Bissell Miller, University of Missouri, Columbia
Bertin Désiré SOH FOTSING, University of Dschang, Cameroon
Antonella Petrillo, University of Cassino and Southern Lazio, Italy
Hong Zhao, The Pennsylvania State University, USA
Jianjun Chen, The University of Chicago, USA
Shaju George, Royal University for Women, Kingdom of Bahrain
Chandrasekaran Subramaniam, Kumaraguru College of Technology, India
Ilango Velchamy, New Horizon College of Engineering, India
M. Kumaresan, M.P.N.M.J. Engineering College, India
Mohammad Valipour, University of Tehran, Iran
Mohameden Sidi El Vally, King Khalid University, KSA
Mona Hedayat, Boston Children's Hospital, Harvard Medical School, USA
Suresh Kumar Alla, Advanced Medical Technologies, BD Technologies, USA
Ahmed Hashim Mohaisen Al-Yasari, Babylon University, Iraq
Aziz Ibrahim Abdulla, Tikrit University, Iraq
Khalid Mohammed Shaheen, Technical College of Mosul, Iraq
Baskaran Kasi, Kuala Lumpur Infrastructure University College, Malaysia
Nurul Fadly Habidin, Universiti Pendidikan Sultan Idris, Malaysia
Adnan Riaz, Allama Iqbal Open University, Pakistan
Syed Noor Ul Abideen, KPK Agricultural University, Pakistan
Arab Karim, M'Hammed Bougara University of Boumerdes, Algeria
Zoubir Dahmani, UMAB University of Mostaganem, Algeria
Mohsen Brahmi, Sfax University, Tunisia
Mongi Besbes, University of Carthage, Tunisia
Mai S. Mabrouk, Misr University for Science and Technology, Egypt
Olfat A Diab Kandil, Misr University for Science and Technology, Egypt
Munir Ahmed G. Timol, Veer Narmad South Gujarat University, India
Saravanan Vasudevan, Arunai Engineering College, India

Table of Contents

Resistencia a la carbonatación de puentes de hormigón armado con 50 años de vida en servicio en ambiente rural	1-8
<i><u>F. H. Iloro, N. O. Ortega, L. Esperjesi, and L. P. Traversa</u></i>	
Comité d'audit et rémunération des auditeurs externes au Maroc	9-16
<i><u>Mohamed Yassine EL HADDAD and Zakaria EZ-ZARZARI</u></i>	
Appropriation des technologies de l'information et de la communication par les Organisations Paysannes: Cas du Groupement Féminin de transformation de noix de karité dans la commune de Ouessè au centre du Bénin	17-27
<i><u>K. P. Degla, S. G. Nouatin, B. Hepkazo, and B. Dagoud</u></i>	
QUALITÉ PHYSICO-CHIMIQUE EN SAISON PLUVIEUSE DES EAUX DE SURFACE DE LA RÉGION DE BONOUA (SUD-EST DE LA CÔTE D'IVOIRE)	28-41
<i><u>Privat TOHOURI, Germain Miessan ADJA, Ghombélé SORO, Etienne Gabriel AKE, Ives N'guessan KONAN, and Jean Biemi</u></i>	
Une expérience d'implantation des sites des soins communautaires en République Démocratique du Congo	42-51
<i><u>Hermès Karemere, Félicien Malyra, Liévin Bangali, Pascal Ngoy, and Lara Ho</u></i>	
L'apiculture au Maroc: focus sur la production de miel	52-78
<i><u>Abdelkarim Moujanni, Abdel Khalid Essamadi, and Anass Terrah</u></i>	
États des lieux et perspectives relatives à la prise en charge psychosociale des patients diabétiques hospitalisés au Centre National Hospitalier Universitaire - Hubert Koutoukou MAGA (CNHU-HKM)	79-89
<i><u>Sylvie de CHACUS and Stéphanie GOUSSANOU</u></i>	
Acculturation des enfants congolais scolarisés en milieu extra-coutumier de la cité de Lubao: étude menée au moyen d'une planche projective	90-100
<i><u>Senghor KAPENGA NTAMBWE</u></i>	
Investigation of the Printability of Henna Before and After Miniaturization on Natural Fabrics	101-114
<i><u>A.A. Ragheb, S. Tawfik, Jacklien Ibrahim Abd El-Thalouth, and M.M. Mosaad</u></i>	
SUR QUELQUES ESPACES IMPORTANTS DE VECTEURS PROPRES DES DISTRIBUTIONS	115-123
<i><u>Gordien TAMBA OF'R</u></i>	
La distribution des stations service et leur impact dans l'organisation spatiale urbaine de Lubumbashi en RDC	124-133
<i><u>Guellord Sangwa Kiteba, Musisilwa Lwindi Elias, Asumani Salimini, J. Nsenga Ilunga, and Mayuke Katshongo Jean Paul</u></i>	
Evaluation du potentiel de germination des légumineuses herbacées utilisées pour la fertilisation des sols	134-144
<i><u>Tetchi Nicaise AKEDRIN, Annick KOULIBALY, GROGA Noël, N'GUESSAN Koffi, and Séverin AKE</u></i>	
Réaménagement holistique et durable de la ville de Mbujimayi par option structure maillée (RD Congo)	145-153
<i><u>M. Célestin Kayembe</u></i>	
ACCESSIBILITE SPATIALE DES QUARTIERS ABRITANT LES ECOLES DE LA VILLE DE MBUJIMAYI (RD CONGO)	154-169
<i><u>M. Célestin Kayembe</u></i>	
Performances agro-économiques de la micro-dose d'engrais sur les cultures associées en zone cotonnière de l'Ouest du Burkina Faso	170-186
<i><u>Kalifa COULIBALY, Mahamadou KOUTOU, Amadou M. DIALLO, and Mamadou SANGARE</u></i>	
Acné et qualité de vie des élèves à Ouagadougou (Burkina Faso)	187-194
<i><u>Nomtondo Amina Ouédraogo, Gilbert Patrice Tapsoba, Muriel Sidnoma Ouédraogo, Soutongo Sita Sandrine Kabré Ouédraogo, Fagnima Traoré, Nessine Nina Korsaga Some, Lydie Yeri Tiouyé, Aissata Bamoko, Barro-Traoré Fatou, Traoré Adama, and Niamba Pascal</u></i>	
Evaluation des Risques de contamination du VIH/SIDA chez les personnels soignants (PS) de l'hôpital général de référence (HGR) de Bagira à Bukavu - RD Congo	195-201
<i><u>Bonhomme Kalimira Kachelewa and F. Kajiramugabe Maneraguha</u></i>	
Etude des Fractions Glycériques et des phospholipides de trois types d'arachides (Arachis hypogaea)	202-218
<i><u>J.P.L. OSSOKO, J. ENZONGA YOCA, Y. OKANDZA, G.M. DZONDO, L. PERQUIS, V. ONG-MEANG, V. POINSOT, M.D. MVOULA TSIERI, and F. COUDERC</u></i>	

Effets sectoriels de la politique monétaire et activité économique: cas du Maroc <i>Charaf-Eddine Moussir</i>	219-225
IMPACT OF MIGRANTS' REMITTANCES ON ECONOMIC GROWTH: CASE OF MOROCCO <i>Safaa Tabit and Charaf-Eddine Moussir</i>	226-233
Le capital humain et le renforcement de la productivité de l'agriculture en Afrique <i>Adel KHADIMALLAH and Zied AKROUT</i>	234-250
Influence of school based quality assurance practices on academic performance of pupils in public primary schools in Subukia sub County, Kenya <i>Francis K. Waweru, Robert B. Mwebi, and Elijah M. Kirimi</i>	251-266
Les caractéristiques des diabétiques de type deux dans la ville de Lubumbashi <i>Kalunga Tompa Bernard, Guellord Sangwa Kiteba, J. Nsenga Ilunga, Mayuke Katshongo Jean Paul, Upité Mastaki Florry, Musisilwa Lwindi Elias, and Asumani Salimini</i>	267-275
Zooplanctons et Macroinvertébrés aquatiques : vers un assemblage de bioindicateurs pour un meilleur monitoring des écosystèmes aquatiques en région tropicale <i>Cosme Z. KOUDENOUKPO, Antoine CHIKOU, Serge H. TOGOUET ZEBAZE, Narcisse MVONDO, Rodrigue U. S. HAZOUME, Pierre K. HOUNDONOUGBO, Guy A. MENSAH, and Philippe A. LALEYE</i>	276-287
IMPACT OF HOSPITAL DISCHARGES OF LEACHATE : STUDY AND ECOTOXICOLOGICAL PERSPECTIVE AND SOLUTION STRATEGY <i>Z. KASUKU WANDUMA, B. MARESCHAL, C. BOULAND, CH. DE BROUWER, B. EPUMBA, M.E. BIEY, D.A.E. MUSIBONO, A. KITAMBALA KABOKA, C. MULAJI, A.M. MALUMBA, O. MONAMA, T. NKODI, and N. NZUZI PANZU</i>	288-302
CENT ANS D'EVANGELISATION DE L'EGLISE CATHOLIQUE : QUELS ACQUIS ET DEFIS ? CAS DE LA PAROISSE DE BOBANDANA, RD CONGO <i>Valentin MADIHANQ MUNGU-IKO and René BITANGI MUKOMBE</i>	303-327
Highly Birefringent Wideband Residual Dispersion Compensating Photonic Crystal Fiber <i>Japatoosh Mondal and Mohammad Shaifur Rahman</i>	328-334
Activate the Economic Side for Saudi Arabia Tourism through the Innovation of Traditional Motifs in Textiles <i>Thanaa Alsarhan and Hanan Bukhari</i>	335-348
Soutirage de l'énergie le long des lignes à haute tension : technologie profitable pour les pays en développement <i>Alphonse Omboua</i>	349-357
ÉTUDE BACTÉRIOLOGIQUE DES INFECTIONS URINAIRES AU SERVICE BACTERIOLOGIE AU C.H.R AL IDRISSE - KENITRA <i>Ahlam Qebibo, Meryam Nhiri, Nourdine Rhaim, Abdsalam El Akhal, Abeer Esmail, Aicha Faiq, Nabila Oujar, Mohammed Ouhssine, and El Hassan Berny</i>	358-364
SUR LES ESPACES TOPOLOGIQUES FINIS ET RESEAUX INFORMATIQUES <i>PALUKU KASOKI CLARA</i>	365-370
INTOXICATIONS MORTELLES DES GAZ (CO ₂ et CO) A TCHIGOMA EN CHEFFERIE DE BUNYAKIRI, TERRITOIRE DE KALEHE / SUD KIVU, R.D. CONGO <i>P. Materanya, Dieudonné Wafula Mifundu, M. Yalire, Munyololo Wayemba, and N. Kapapa</i>	371-379
Ethnicity Cultural And Political leadership with Regard To Instability in Republic of Guinea Conakry <i>Toure Cheick A. Mandian, Sity Daud, and Russli Kamaruddin</i>	380-385
La performance de l'université publique marocaine: Un concept difficile à cerner <i>Mohammed LAMCHAOUAT, Nabil BOUAYAD AMINE, and Khalid ROUGGANI</i>	386-399
Effect of maturity stage on morphological and chemical characteristics of <i>Opuntia ficus indica</i> from Morocco <i>Jihane Oumato, Saadia Zrira, Mohamed Boujnah, and Bouchta Saidi</i>	400-410