



The Journal of American Science

ISSN 1545-1003

Volume 6, Issue 3, Cumulated No. 24, March 1, 2010

[Cover Page](#), [Introduction](#), [Contents](#), [Call for Papers](#), [All papers in one file](#)

All comments are welcome: editor@americanscience.org

Welcome to send your manuscript(s) to: americansciencej@gmail.com.

CONTENTS

No.	Titles / Authors	Full Text
1	<p align="center">Composting of Some Dangerous and Toxic Weeds Using <i>Eisenia foetida</i> Avnish Chauhan* and Joshi PC</p> <p>Department of Zoology and Environment Science, Gurkula Kangri University, Harwar, Uttaranchal 249404, India. *Corresponding author: avnishchauhan_in@yahoo.com</p> <p>Abstract: The experiments were conducted to obtain compost from some toxic weeds by using vermicomposting and conventional methods. The weeds used in the experiment were congress grass (<i>Parthenium hysterophorus</i> Linn.), water hyacinth (<i>Eichhornia crassipes</i>) and bhang (<i>Cannabis sativa</i> Linn.). Total six sets of experiments were setup by using above materials. Three of them were test experiments and rests were control experiments. In all the test experiment 50 worms were introduced. The results show a high increase in nitrogen, potassium, phosphorus and a high decrease in organic carbon, C/N, C/P ratio in the experiment having <i>Eisenia foetida</i>. The otherwise toxic weeds used in this experiment are thus converted into compost with higher concentration of nutrients. [Journal of American Science 2010;6(3):1-6]. (ISSN: 1545-1003).</p> <p>Keywords: <i>Parthenium hysterophorus</i> L., <i>Eichhornia crassipes</i>, <i>Cannabis sativa</i> L., <i>Eisenia foetida</i>, cow dung.</p>	Full Text
2	<p align="center">Soil and Water Conservation in Kenya-Operations, Achievements and Challenges of the National Agriculture and Livestock Extension Programme (NALEP) Titus Wambua Mutisya^{1*}, Luo Zejjiao¹ and Nenkari Juma²</p> <p>¹School of Environmental Studies, China University of Geosciences (Wuhan) Lumo Road 388, Wuhan City, 430074 Hubei Province, P.R. China</p> <p>² Department of Livestock Production, Ministry of Livestock Development. Republic of Kenya tmutisya2003@yahoo.com; mutisya2003@gmail.com</p> <p>Abstract: This paper gives an historical analysis of the soil and water conservation activities in Kenya, introduces the national soil and water conservation project and then gives an insight in to the National Agriculture and Livestock Extension Programme (NALEP), which was designed after several previous projects failed to address the sustainability of such development projects leading to progressive decline in soil fertility and agricultural output. The achievements and challenges faced while implementing the programme activities are also discussed. The</p>	Full Text

	<p>general project information was gathered from the various policy documents, programme documents and workshop reports while the achievements and challenges were drawn as a result of the involvement of two of the authors in the programme activities in 45 focal areas that have been implementing it since inception. The strong stakeholder involvement in all the stages of project development is the basis of the anticipated sustainability. The synergy between the key stakeholders is necessary for a sustainable development programme. Activities which involved the farmers, Government staff, and other development partners were found to be more successful than those that involved only one institution. NALEP framework is worth being replicated in any development project in the country. Scaling-up and replication of the success cases is recommended to improve the general household food security, economic empowerment and environmental conservation. This is the first paper analyzing the soil and water conservation, NALEP and its sustainability measures. The stakeholders could use the information to improve the programme. [Journal of American Science 2010;6(3):7-15]. (ISSN: 1545-1003).</p> <p>Key words: Soil and water conservation, NALEP, sustainability, stakeholders</p>	
3	<p>Helminth Parasites of some Freshwater Fish from River Niger at Illushi, Edo State, Nigeria Onyedineke, Nkechi Esther¹; Obi, Uchechukwu²; Ofoegbu, Pearl Ugochi¹ and Ukogo, Ifeoma¹ ¹Department of Biology, Federal University of Technology, Owerri, Nigeria. ²Department of Zoology, Ambrose Alli University, Ekpoma, Nigeria. nonyedineke@yahoo.com</p> <p>Abstract: Although there are some reports on parasites of fish at different locations on River Niger, there had been no report for Illushi. Parasitological investigation of 71 fish samples belonging to 14 genera from river Niger at Illushi showed a 60.6% prevalence infection and an infection rate of 59.15%. The gills, stomach and sometimes muscles were infected; no parasites were found infecting the liver and eye lens. Nematodes, acanthocephalans, trematodes and cestodes were recovered in decreasing order of abundance. <i>Proteocephalus</i> sp. was found in <i>Ctenopoma kingsleye</i> and was the only parasite infecting <i>Tilapia galilaeus</i>. <i>Diphyllobothrium</i> sp. was only found in the stomach and gills of <i>Chrysichthys nigrodigitatus</i>. <i>Paramphistomum</i> sp. was the only trematode found in the gills of examined fishes. <i>Bucephalus</i> sp was only found in <i>Synodontis eupterus</i> and <i>Distichodus engycephalus</i>. Acanthocephalans were represented by <i>Pomporhynchus</i>, <i>Quadrigidae</i> and <i>Neoechinorhynchus</i>. <i>Neoechinorhynchus</i> was found only on the intestine of <i>Lates niloticus</i>. Parasites were more prevalent in fish of 10 – 30cm standard length. There was no specific trend in parasite prevalence in <i>S. eupterus</i>, <i>S. clarias</i>, <i>C. nigrodigitatus</i> and <i>C. kingsleye</i> as regards the weight classes. The study showed the intestine as the preferred organ for infection, no infection was noticed in the oesophagus. [Journal of American Science 2010;6(3):16-21]. (ISSN: 1545-1003).</p> <p>Key words: helminth parasites, prevalence, freshwater fish, River Niger</p>	<p>Full Text</p>
4	<p>STRUCTURAL AND OPTICAL CHARACTERIZATION OF SPRAY DEPOSITED SnS THIN FILM B.G. Jeyaprakash[*], R. Ashok kumar², K.Kesavan², A. Amalarani¹ 1. Department of Physics, Ponnaiyah Ramajayam College of Engineering and Technology Thanjavur -613 403, TamilNadu, India 2. Department of Physics, PRIST University, Thanjavur – 614 904, Tamilnadu, India [*]Corresponding author email: bgjpabr@yahoo.co.in</p> <p>Abstract: Tin sulfide thin films were prepared on glass substrate by home built microcontroller based spray pyrolysis unit. X-ray diffraction confirmed the nanocrystalline SnS phase formation with preferential orientation along (111) plane. The intensity of XRD peaks increases with the increase of substrate temperature which implies better crystallinity takes place at higher temperature. Scanning electron micrograph of the film revealed the manifestation of nano SnS with size lying in the range of 31 -49nm as the function of substrate temperature. VIS-NIR spectrophotometric measurement showed high transparency of about 87% in the wavelength range 600-1100nm with a direct allowed bandgap lying in the range of 1.30 – 1.40eV as substrate temperature increases. [Journal of American Science 2010;6(3):22-26]. (ISSN: 1545-1003).</p> <p>Key words: Tin sulfide, thin film, spray pyrolysis</p>	<p>Full Text</p>
5	<p>Performance of an Otto engine with volumetric efficiency Rahim Ebrahimi Department of Agriculture Machine Mechanics, Shahrekord University, P.O. Box 115, Shahrekord, Iran Rahim.Ebrahimi@gmail.com</p> <p>Abstract: In this paper, the performance of an Otto engine is evaluated under variable volumetric efficiency.</p>	<p>Full Text</p>

	<p>Finite-time thermodynamics is used to derive the relations between power output and thermal efficiency at different compression ratio and volumetric efficiency for an air-standard Otto cycle. The effect of the volumetric efficiency on the irreversible cycle performance is significant. It was found that the effect of volumetric efficiency on the cycle performance is obvious, and they should be considered in practice cycle analysis. The conclusions of this investigation are of importance when considering the designs of actual Otto engines. [Journal of American Science 2010;6(3):27-31]. (ISSN: 1545-1003).</p> <p>Keywords: Volumetric efficiency; Irreversibility; Analysis; Performance; Otto cycle</p>	
6	<p>Regeneration and Plant Diversity of Natural and Planted Sal (<i>Shorea robusta</i> Gaertn.F.) Forests in the Terai – Bhabhar of Sohagibarwa Wildlife Sanctuary, India</p> <p>D.S. Chauhan, Bhupendra Singh, Shashi Chauhan, C.S. Dhanai & N.P. Todaria Department of Forestry, Post Box No. 59, H. N. B Garhwal University, Srinagar (Garhwal) –246174, Uttarakhand, India Email: dschauhan2008@gmail.com; nptfd@yahoo.com</p> <p>Abstract. We compared regeneration, tree diversity and floristic diversity of natural and planted tropical deciduous Sal (<i>Shorea robusta</i>) forest in Northeastern Uttar Pradesh, India. Species richness (105 and 95 species in natural and planted forests respectively) as well as species evenness was higher in natural forests than in planted forests. Natural forests also had higher mature tree, pole, sapling, and seedling densities compared to planted forest sites. In spite of differences in diversity, natural and planted forests did not differ significantly in species composition and 84 species occurred on both forests. Natural and planted forests did differ in soil moisture%, organic carbon%, available Nitrogen, Phosphorus, Potassium and soil pH. Dominant families in both forests types are Fabaceae (14 species), Mimosaceae, Euphorbiaceae and Moraceae (7 species each) followed by Verbenaceae and Caesalpiniaceae. Tree species dominated the flora (63 %). Of the 196 species found in both sites, 49% species showed good reproductive success, 40% species appeared poor and no seedling & sapling stages. The remaining 11% species were present as seedlings but not as adult individuals. Good quality timber species are not regenerating, with the exception of <i>Shorea robusta</i>, although mortality at seedling stages of this species is high. Our results suggest that the species richness and evenness differed between natural and planted forests and regeneration of some important tree species also varied from natural to planted forests due to differences in microclimate and soil characteristics. Moreover, the good reproductive success of both types of forests indicates the potential of forestry plantations in tropical deciduous forests. This study will help in the formation of effective forest management and conservation strategies. [Journal of American Science 2010;6(3):32-45]. (ISSN: 1545-1003).</p> <p>Key words. <i>Shorea robusta</i>, diversity, regeneration, natural forest, planted forest and density.</p>	<p>Full Text</p>
7	<p>Microstrip Rectangular Patch Antenna Printed on LiTi Ferrite with Perpendicular DC Magnetic Biasing</p> <p>Naveen Kumar Saxena^{1,*} (<i>IEEE Student Member</i>), Nitendar Kumar² and P.K.S. Pourush¹</p> <ol style="list-style-type: none"> 1. Microwave Lab, Department of Physics, Agra College Agra 282002 (U.P) India. Nav3091@rediffmail.com, ppourush@yahoo.co.in 2. Solid State Physics Laboratory, Timarpur, Delhi 110007 India. Nitendar@rediffmail.com <p>Abstract: Characterization of a tunable & switchable microstrip rectangular patch antenna printed on synthesized LiTi ferrite substrate with a normal magnetic bias field is presented. In this paper the concept of switching and tuning are described by magnetostatic and spin waves phenomenon. The DC magnetic biasing generate these both type of waves which response a number of novel magnetic and electrical characteristics including switchable and polarized radiations from a microstrip antenna. In such a case of substituted polycrystalline ferrite antenna due to the DC biasing, most of the power will be converted into mechanical waves and little radiates into air. Under such condition the antenna become switch off, in the sense of effectively absence as radiator. The preparation of ferrite by the solid state reaction technique is also précised with the short description of electric and magnetic properties. [Journal of American Science 2010;6(3):46-51]. (ISSN: 1545-1003).</p> <p>Keywords: Substituted ferrite, microstrip patch antenna, magnetostatic waves, spin waves, X-band frequency range.</p>	<p>Full Text</p>
8	<p>Vitamin E and Curcumin Intervention on Lipid-Peroxidation and Antioxidant Defense System.</p> <p>¹Ali Reza Amani, ²Muhammad Nazrul Hakim Abdullah, ³Mohd Majid B Konting, ⁴Kok Lian Yee ^{1,4}Department of Sport Science, Faculty of educational Studies, University Putra Malaysia</p>	<p>Full Text</p>

	<p>²Department of Biomedical Science, Faculty of Health and Medical, University Putra Malaysia ³Department of Foundations of Education, Faculty of educational Studies, University Putra Malaysia ¹Alireza.daryasar@gmail.com</p> <p>Abstract: The generation of free radical species may represent the negative aspect of exercise. There are a lot of data which have been shown an association between exercise and the increased free radical formation. Living cellular damage may lead human towards hasty aging and variant cancers. It is widely agreed that with increasing consumption of fruits and vegetables, decreased intake of unsaturated fat and moderate exercise will enhance fitness and improved cardiovascular health of the population in most of the developed and near-developed countries. Vitamin E and Curcumin have been known as a strong Antioxidant for prevent of the lipid peroxidation and improve the antioxidant defense system. Curcumin is a phenolic compound presented as a strong anti-oxidative, anti-inflammatory and anti-septic property, widely used in Indian medicine and culinary traditions. Recent investigation has shown that curcumin prevents lipid peroxidation and DNA strand breakage. This review have been shown the effect of the curcumin and vitamin E supplement on the lippid peroxidation and antioxidant defense system specify during the exercise. [Journal of American Science 2010;6(3):52-62]. (ISSN: 1545-1003). Keywords: Vitamin E, Curcumin, Exercise, Antioxidant, Lipid-Proxidation, Free radical</p>	
9	<p>The African Debt Dilemma: An Overview of Magnitude, Causes, Effects and Policy Options Maleshoane Lekomola College of International Business and Management; Shanghai University; Baoshan District, Shang Da Rd #99, Z bldng, Rm Z₁-312, Shanghai 200444, China, Cell: 13764357204 , Tel: +86-21-66131401, Fax: +86-21-66134536 lekomolas@yahoo.co.uk</p> <p>Abstract: This paper attempts to highlight the African debt dilemma. It tries to highlight empirically, the magnitude, causes and effects of African indebtedness that has grown several times between 19970 and 2007. It identifies factors responsible for African's debt to include excessive budget deficits, economic mismanagement, rising real interest rates in industrialized world, global oil shocks and commercial banks' lending practices of the 1970s. The paper concludes with some policy recommendations that are likely to help reduce Africa's huge external debt and its impacts on development; therefore, Africa's debt problem should be a joint effort by all participants. [Journal of American Science 2010;6(3):63-69]. (ISSN: 1545-1003). Keywords: External debt, debt poverty, economic growth and basic transfer</p>	Full Text
10	<p>Regional Development Disparities in Malaysia Mohammad Sharif Krimi, Zulkornain Yusop, Law Siong Hook Department of Economics, Faculty of Economics and Management, University Putra Malaysia, Serdang 43400, Malaysia. sharifkarimi@yahoo.com</p> <p>Abstract: Achieving balanced regional development will remain as one of the key objectives of national development during the development Plans in Malaysia. Therefore this paper analyses regional disparities amongst major states in Malaysia to find out gap and rank of regional development during two development plan (Seventh and Eighth plan). The paper proposes a new methodology that includes TOPSIS (Technique for Order Preference by Similarity to Ideal Solution) and Shannon entropy for first time in terms of ranking in this field. The empirical results indicate that in terms of regional balance, little progress was made in reducing development gaps between regions during two plans and Wilayah Persekutuan Kuala Lumpur was the most developed region in 2000 and 2005. On the other hand, Sabah was the least developed region in same period. [Journal of American Science 2010; 6(3):70-78]. (ISSN: 1545-1003). Keywords: TOPSIS, Shannon Entropy, Regional Development, Malaysia</p>	Full Text
11	<p>Effect of Combined Cocoa Pod Ash and NPK Fertilizer on Soil Properties, Nutrient Uptake and Yield of Maize (<i>Zea mays</i>) Dr. Ayeni, L.S. (Ph.D Soil Fertility) University of Agriculture, Department of Soil and Land Management, Abeokuta, Nigeria E-mail: leye_sam@yahoo.com</p> <p>Abstract: Field experiments were conducted in two cropping seasons (March and September, 2007) at two locations to determine the effect of cocoa pod ash (5 and 10 t ha⁻¹) and N 20:10:10 fertilizer (150 and 300 kg ha⁻¹) on soil chemical properties, nutrient uptake and yield of maize in southwest Nigeria. The experiments were sited at Adeyemi College of Education Research Farm, Ondo and Okegun both Alfisol. Ondo soil was sandy clay, deficient in OM, N, P and K while Okegun soil was clay loam, deficient in OM, N and K. The treatments were laid out in randomized complete block design with three replications. Combined cocoa pod ash and NPK 20:10:10 fertilizer significantly (p<0.05) increased soil OM, N, P and K at Ondo and OM, P and K at Okegun than cocoa pod ash and</p>	Full Text

	<p>NPK 20:10:10 fertilizer singly applied. Plant N, P and K were also increased significantly compared with single application of cocoa pod ash and NPK20:10:10 except 300 kg ha⁻¹.at the two locations as well as plant height, grain, stover and dry root yields. At Adeyemi (sandy clay), compared with control, the percentage increase in grain yield were C10F150 (81%), F300 (74.76%), C5F150 (65.71), C10 (47.62%), C5 (38.5%) and F150 (32.28%). For Okegun (clay loam), grain yield significantly increased (p<0.05) by C10F150 (75.85%), F300 (54.36%), C5F150 (42.46%), C10 (8.10%), C5 (19.84%) and F150 (17.06%). Treatment C10F150 gave the highest increases in soil nutrient values and growth parameters of maize. Soil total N, available P and exchangeable K tended to increase as the level of the treatment combinations increased at both locations. Cocoa pod ash combined with reduced level of NPK 20:10:10 was more effective than single application of cocoa pod ash and NPK 20:10:10 fertilizer in both locations. Sandy clay responded to application of cocoa pod ash than clay loam in this experiment. [Journal of American Science 2010;6(3):79-84] (ISSN: 1545 - 1003)</p> <p>Keyword: integration, Fertilizer, maize, soil, nutrient uptake</p>	
12	<p>Seasonal Variations in the Water Chemistry and Benthic Macroinvertebrates of a South Western Lagoon, Lagos, Nigeria</p> <p>*Nkwoji, J. A., Yakub A., Ajani, G. E., Balogun, K. J., Renner, K.O., Igbo, J. K., Ariyo, A. A., Bello, B. O.</p> <p>Nigerian Institute for Oceanography and Marine Research, Lagos, Nigeria Email: josephniomr@yahoo.com; Phone: +2348023739253</p> <p>ABSTRACT: The water chemistry and benthic macroinvertebrates of a south-western lagoon, Lagos, Nigeria was studied in July, 2008 and March, 2009 representing wet and dry seasons respectively. The salinity ranged from 0.0 ‰ in the wet season indicating a typical freshwater condition to 32.0 ‰ in the dry season indicating a marine condition. Higher Dissolved Oxygen values were recorded in the wet season than in the dry season. 47.47% of the total organisms was sampled in the wet season while 52.53% was collected in the dry season. Species diversity was also higher in the dry season than the wet season. <i>Tellina nymphalis</i>, <i>Clibanarius africana</i>, and <i>Penaeus notialis</i> sampled in the dry season were absent in the wet season. Only one species (<i>Crassostrea gazar</i>) sampled in the wet season was absent in the dry season. There was an indication of a general defaunisation of this lagoon for which reasons including pollution of the lagoon are plausible. [Journal of American Science 2010;6(3):85-92]. (ISSN: 1545-1003)</p> <p>Keywords: Benthic, Macroinvertebrates, Rainfall pattern, Salinity, Defaunisation</p>	<p>Full Text</p>
13	<p>Microbiological Impacts of Produce Water Discharges in Nearshore Shallow Marine Waters Near Chevron's Escravos Tank Farm, Nigeria</p> <p>Dr. Chuma C. Okoro</p> <p>Department of Biological Sciences and Biotechnology, Caleb University, Lagos Nigeria Tel: 08033072754, 01-7430285. e-mail: chuma2k2001@yahoo.com P. O. Box 146, University of Lagos Post Office, Lagos, Nigeria</p> <p>Abstract: A microbiological survey was undertaken in produced water and it's receiving environment with the aim of verifying the likely impacts of produced water microbial flora especially the hydrocarbon utilizing types and the sulphate reducing bacteria on the immediate receiving marine near shore shallow environment. The sampling was carried out in two seasons, late wet season and late dry season. The results obtained indicate that produced water from Escravos tank farm had relatively moderate concentrations of hydrocarbon utilizing microorganisms and sulphate reducing bacteria and the concentration of these organisms are much higher at the point of discharge of the produced water including the surface water and the bottom sediment. Bottom sediment samples up to a distance of 500m upstream also showed relatively moderate concentration of hydrocarbon utilizing microorganisms and sulphate reducing bacteria. A distance of 500m downstream showed relatively low concentrations of hydrocarbon utilizing bacteria without any presence of sulphate reducing bacteria. The two seasons under investigation showed similar results. The results obtained indicate that the impacts of produced water microbial flora on the receiving environment is limited to the vicinity of the discharge point of about 100 meters in diameter and also to some extent up to a distance of 500m upstream along the direction of flow of produced water discharges. This assertion is supported by the experimental data which showed considerable accumulation of produced water hydrocarbons in the sediment at the discharge point up to 500m upstream with relatively high concentration of hydrocarbon degrading microorganisms and sulphate reducing bacteria. It is expected that while the hydrocarbon degrading microorganisms plays a beneficial role of degrading and detoxifying abundant produced water hydrocarbons in the sediment and the surface water, Sulfate reducing bacteria might at the same time be playing a detrimental role of oxidizing certain organic compounds or hydrogen and reducing sulphate and other reduced sulphur compounds in</p>	<p>Full Text</p>

	<p>the sediment to hydrogen sulphide, the hydrogen sulphide when released can be very toxic to bacteria, aquatic animals and man. [Journal of American Science 2010;6(3):93-101]. (ISSN: 1545-1003).</p> <p>Keywords: Produced water, Sulphate reducing bacteria, Hydrocarbon utilizing bacteria</p>	
14	<p style="text-align: center;">Traditional wireless Communication and its Model in South Asian Region DharmaKeerthi Sri Ranjan, G.D. Faculty of Mass Media, SriPalee Campus, University of Colombo, Sri Lanka. Department of Sociology, Wuhan University, Wuhan, 430072 P.R. China. <u>Sri_2007@hotmail.com</u></p> <p>Abstract: Traditional wireless Communication is encompassed by the new communication technologies and the heterogeneous vision of a culturally diverse society. This speedy diffusion of latest applications of the new media is exploited for the information and entertainments in the rural locales. As a consequence of this the traditional media net work is being affected at an alarming rate in the periphery. The folk cultural tradition has become to tune pop songs and pop songs associated cultural traditions. These associations mainly occur at the economically and socially marginalized people. These modern information identities, based on the science and technology, are experiencing the western cultural denominations. But the traditional wireless communicational patterns were interconnected collectively with the nature oriented human factors. The newly contextualized model (DSR Model*) on the traditional media based on the Ethnographic approach, discusses the traditional wireless communication system, established in the indigenous territory. [Journal of American Science 2010:6(3) 102-108]. (ISSN: 1545-1003).</p> <p>Key Words: Traditional media, Traditional social context, New Model for the traditional media</p>	Full Text
15	<p style="text-align: center;">Lesser Chamber Effect inside Open Top Chambers Provides Near-Natural Microenvironment for CO₂ Enrichment Studies in an Alpine Region of India Ashish Kumar Chaturvedi,[*] Pratti Prasad and Mohan Chandra Nautiyal High Altitude Plant Physiology Research Centre, Post Box No. -14, H N B Garhwal University Srinagar Garhwal – 246174, Uttarakhand, India. <u>ashi_spc@rediffmail.com</u>, <u>ashispc@gmail.com</u></p> <p>Abstract: Open top chambers (OTCs) were designed and established for the first time in an Indian alpine territory for revealing the effects of realistic elevated carbon dioxide (CO₂) concentrations on growth forms of alpine region of India in natural conditions. Comparison of the microclimatic parameters which affect the growth and physiology of alpine plants was done in three conditions viz. open field, polyhouse and OTCs to trace out the chamber effect inside OTCs. Present communication reveals the efficiency of Open Top Chambers for climate simulation techniques in Indian alpine region. Simple designing and construction of open top chambers make them the most probable method to be used for long-term elevated CO₂ revelation of alpine ecosystems. The operation of the system was satisfactory during the first growing season and repeatability of the gas treatments can be regarded well in this low cost exposure system. [Journal of American Science 2010;6(3):109-117]. (ISSN: 1545-1003)</p> <p>Keywords: Climate change; Open Top Chambers; CO₂ enrichment; Alpine region; Garhwal Himalaya</p>	Full Text
16	<p style="text-align: center;">Phyllosphere Fungi of <i>Alnus nepalensis</i>, <i>Castanopsis hystrix</i> and <i>Schima walichii</i> in a Subtropical Forest of North East India A. Kayini and R.R. Pandey Department of Life Sciences, Manipur University, Canchipur, Imphal – 795 003, India <u>kayinkrich@gmail.com</u>; <u>pandey.rr@rediffmail.com</u></p> <p>Abstract: A total of 38 epiphytic and endophytic phyllosphere fungi were isolated from living leaves of <i>Alnus nepalensis</i>, <i>Castanopsis hystrix</i> and <i>Schima walichii</i> by using a combination of cultural methods i.e. dilution plating, washed disk and surface sterilization, respectively at bimonthly intervals during July, 2008 to May, 2009. <i>Alternaria alternata</i>, <i>Cladosporium cladosporioides</i>, <i>Fusarium oxysporum</i> and <i>Pestalotiopsis</i> sp. were the dominant colonizers of three forest tree leaves. The type of fungal species isolated from different test leaves were found to be influenced by the method of isolation. Some species could be recovered by a particular culture method while others were recovered by two or all three isolation methods. <i>Alternaria raphani</i>, <i>Epicoccum purpurascens</i> and <i>Gliocladium roseum</i> from <i>Alnus nepalensis</i> leaves and <i>Scopulariopsis</i> sp. and <i>Trichoderma harzianum</i> from <i>Castanopsis hystrix</i> were the species recovered specifically by washed disk method. Whereas, <i>Gliocladium fimbriatum</i> was isolated only from <i>Schima walichii</i> leaves as endophytic fungi. [Journal of American Science 2010:6(3):118-124]. (ISSN: 1545-1003).</p> <p>Key words: Phyllosphere fungi, epiphytes, endophytes, <i>Alnus nepalensis</i>, <i>Castanopsis hystrix</i>, <i>Schima walichii</i></p>	Full Text

17	<p>LAND MANAGEMENT AND ITS PROBLEMS IN NOTSE, SMALL TOWN IN SOUTHERN TOGO Komlan Dela Gake Master Student in Applied Geographic Information System China University of Geosciences, 388 LuMo road, Wuhan, China. Zip code 430074 glanok79@hotmail.com</p> <p>ABSTRACT: Nowadays the analysis of any urban city uses modern techniques such as remote sensing and geographic information system. But in the cities of developing countries this is not often the case, due to lack of means and, on the other hand, lack of political will. The case of Notse, a small town in southern Togo is no exception. Therefore the analysis of the city in this paper will be based on the results of research carried out on the field. However the goal is to reach the constitution of databases that can be used as starting point for the use of the new technologies. Our investigation allowed us to update the problems undermining the development of the town, namely: the lack of reliable data on urban planning, the lack of services and basic facilities to name a few. Further on the assessment will allow us to draw the necessary conclusions and a useful approach to improve the development of the city with new technologies. Consequently, a spatial development plan is proposed to serve as a starting point to a more technological and professional approach of what a 21st century city planning should be. This plan is essentially based on the results of spatial and demographic data analysis. [Journal of American Science 2010;6(3):125-135]. (ISSN: 1545-1003).</p> <p>Keywords: Field work, Geographic Information System, Database constitution, Spatial Development Plan.</p>	Full Text
18	<p>Using Topsis Method with Goal Programming for Best selection of Strategic Plans in BSC Model Javad Dodangeh¹, Rosnah Bt Mohd Yusuff¹, Javad Jassbi² ¹. Department of Mechanical and Manufacturing Engineering, University Putra Malaysia, Malaysia ² Department of Industrial Management, Islamic Azad University, Science & Research Branch, Tehran, Iran jdodangeh@yahoo.com</p> <p>Abstract: Strategic planning is expressly significant for organization's success and competitive advantage making in an increasingly competitive business environment. Implementation of applicable strategies plays an important role for organizations' success. Balanced scorecard is a suitable tool for designing operative strategies. However, one of the balanced scorecard difficulties is the selection in strategic plans' performance. In this issue paper, was demonstrated a model for selection and ranking of strategic plans in Balanced Scorecard using Topsis method Goal Programming model. So first using the view and consensus of organization's managers and experts' opinions, measures of four perspectives and objectives are settled in BSC. And then using experts' opinions and taking the relative importance of decision makers' opinions into consideration, by using Goal Programming model and Topsis method, the implementations of strategic plans are selected in BSC model. The results are revealed that the introduced methods are more reliable and acceptable and the experts were verified the model for selecting of strategic plans in BSC in operation. The initiated methods were used in a study and derived results from it were analyzed from various points of view. In this article Initiative is called strategic plans. [Journal of American Science 2010;6(3):136-142]. (ISSN: 1545-1003).</p> <p>Keywords: Balanced scorecard model, MADM, MODM, Goal Programming, Topsis</p>	Full Text
19	<p>Biodegradation of Produced Water Hydrocarbons by <i>Aspergillus Fumigatus</i> Chuma C. Okoro¹, Olukayode O Amund² ¹ Department of Biological Sciences and Biotechnology, Caleb University, Lagos ² Department of Botany and Microbiology, University of Lagos, Nigeria Tel: 08033072754, 01-7430285. e-mail: chuma2k2001@yahoo.com P. O. Box 146, University of Lagos Post Office, Lagos, Nigeria</p> <p>Abstract: Biodegradation studies of hydrocarbons in untreated produce water from an oil production facility in Nigeria were undertaken over a period of time using pure cultures of <i>Aspergillus fumigatus</i> isolated from the zone of produce water discharge into the receiving sea water. The rate of reduction in some petroleum hydrocarbon fractions such as n-Alkanes, Aromatics, Nitrogen Sulfur and Oxygen (NSO) containing compounds and Polycyclic aromatic hydrocarbons (PAHs) were monitored by means of Gas chromatography and Mass spectrometry using mechanically treated produced water as a reference. Gas chromatographic analysis showed that untreated produced water used in the study had an oil and grease content of 1407mg/l, this includes n-alkanes(608mg/l), Aromatics (13.88mg/l), NSO compounds (12.68mg/l) PAHs(0.833mg/l) and some unidentified greasy components. Upon mechanical treatment, the oil and grease component of produced water was reduced to 44mg/l comprising of n-alkanes (38.40mg/), Aromatics (2.65mg/), NSO compounds(1.78mg/), PAHs (0.0655mg/) and some unidentified greasy component. A pure culture of <i>Aspergillus fumigatus</i> after 120 days of exposure to untreated produce water</p>	Full Text

	<p>was able to reduce the hydrocarbons to the following components. n-Alkanes (78.5mg/l), Aromatics(1.58mg/l), NSO compounds (1.22mg/l) and PAHs (0.0168 mg/l). This result indicate that produce water from Chevron's Escravos tank farm is readily biodegradable and the <i>Aspergillus fumigatus</i> culture used in the study was very effective in degrading the PAHs and NSO components of the hydrocarbon when compared with the conventional mechanical treatment process even though the biodegradation process was very slow. [Journal of American Science 2010;6(3):143-149]. (ISSN: 1545-1003).</p> <p>Keywords: Pure culture, Produce water, Biodegradation, Oil and Grease.</p>	
20	<p style="text-align: center;">Comparison of the Type of the Web Base Advertising on E-Commerce Improvement Maryam Mazandarani, m93.maryam@yahoo.com</p> <p>Abstract: There are several investigation that have been shown increase the Ecommerce improvements by web base advertising. Recently and specifically after developing on the personal, news, e-shops and web2 websites have been increase interesting to do E-commerce and improve it by the web based advertising. This investigation have been focused on comparison of the two type of the web base advertise on the visitors direction to the targets websites. Result of this investigation have been shown that the picture banner base advertise inside the news content is more effective to direction of the visitors to the targets website. Researcher in this research has been suggested to make the text base advertising in side the content to improve the E-commerce. [Journal of American Science 2010;6(3):150-156]. (ISSN: 1545-1003).</p> <p>Keywords: Bossiness, E-commerce, Website, Web2, PHP Programming</p>	Full Text
21	<p style="text-align: center;">Contribution of Rice Husk Ash to the Properties of Mortar and Concrete: A Review Alireza Naji Givi ¹, Suraya Abdul Rashid ², Farah Nora A. Aziz ³, Mohamad Amran Mohd Salleh ²</p> <p style="text-align: center;">¹. Institute of Advanced Technology, Universiti Putra Malaysia, Malaysia ². Department of Chemical and Environmental Engineering, Faculty of Engineering, Universiti Putra Malaysia ³. Department of Civil Engineering, Faculty of Engineering, Universiti Putra Malaysia, Malaysia ². Department of Chemical and Environmental Engineering, Faculty of Engineering, Universiti Putra Malaysia najigivi@yahoo.com</p> <p>Abstract: In the last decade, the use of supplementary cementing materials has become an integral part of high strength and high performance concrete mix design. These can be natural materials, by-products or industrial wastes, or the ones requiring less energy and time to produce. Some of the commonly used supplementary cementing materials are fly ash, Silica Fume (SF), Ground Granulated Blast Furnace Slag (GGBFS) and Rice Husk Ash (RHA) etc. RHA is a by-product material obtained from the combustion of rice husk which consists of non-crystalline silicon dioxide with high specific surface area and high pozzolanic reactivity. It is used as pozzolanic material in mortar and concrete, and has demonstrated significant influence in improving the mechanical and durability properties of mortar and concrete. This paper presents an overview of the work carried out on the use of RHA as partial replacement of cement in mortar and concrete. Reported properties in this study are the mechanical, durability and fresh properties of mortar/concrete. [Journal of American Science 2010;6(3):157-165]. (ISSN: 1545-1003).</p> <p>Key words: Rice husk ash; concrete; mechanical properties of concrete; durability of concrete</p>	Full Text
22	<p style="text-align: center;">Quality Models in Software Engineering Literature: An Analytical and Comparative Study Rafa E. Al-Qutaish, PhD Al Ain University of Science and Technology – Abu Dhabi Campus, PO Box: 112612, Abu Dhabi, UAE. rafa@ieec.org</p> <p>Abstract: The quality of the software is critical and essential in different types of organizations. In some types of software, poor quality of the software product in sensitive systems (such as: real-time systems, control systems, etc.) may lead to loss of human life, permanent injury, mission failure, or financial loss. In software engineering literature, there are a number of quality models in which they contain a number of quality characteristics (or factors, as called in some models). These quality characteristics could be used to reflect the quality of the software product from the view of that characteristic. Selecting which one of the quality models to use is a real challenge. In this paper, we will discuss the contents of the following quality models: McCall's quality mode, Boehm's quality model, Dromey's quality model, FURPS quality model and ISO 9126 quality model. In addition, we will focus on a comparison between these quality models, and find the key differences between them. [Journal of American Science 2010; 6(3):166-175]. (ISSN: 1545-1003).</p> <p>Keywords: Software Quality; Quality Models; Quality Engineering; ISO 9126; McCall's Quality Model; Boehm's Quality Model; Dromey's Quality Model; FURPS Quality Model</p>	Full Text

23	<p style="text-align: center;">Study on the Metal Absorption by two Mosses in Delhi Region (India) Santosh Kumar Vats, Anjana Singh, Monika Koul and Prem Lal Uniyal Department of Botany, University of Delhi, Delhi- 110007, India Telephone Number- +91-11-27190671, +91-9968279822 (M). uniyalpl@rediffmail.com</p> <p>Abstract: Bryophytes act as precise and sensitive bioindicators as well as bioaccumulators of metal deposition in the environment. Heavy metals are ubiquitous pollutants which are persistent and get transferred from one tropic level to another. Two moss species <i>Physcomitrium cyathicarpum</i> and <i>Barbula constricta</i> growing across different regions of Delhi have been used as indicators of metal. The estimation of important heavy metals like Cr, Co, Cd, Cu, Fe, Hg, Ni and Pb have been carried out in the tissues of both the moss species using atomic absorption spectroscopy, the level being highest for Fe, Ni, Cu and Cr followed by Co, Cd, Pb and Hg. The concentrations of Fe, Co, Cu and Cr was found high in both the species growing in North Delhi region followed by South and West Delhi suggesting the regions with industrial belt, vehicular traffic and heavy industries which release chemical effluents. The low level of metal pollutants was observed in moss specimens collected from Central and East Delhi. Overall, Fe, Cu and Pb are responsible for causing major pollution in the studied sites and the concentration of metals in plant as well as in the substratum was found to be higher in North, South and West Delhi region. Statistical analyses also revealed that correlation exist between the metal content in mosses and degree of pollution in studied sites. [Journal of American Science 2010;6(3):176-181]. (ISSN: 1545-1003).</p> <p>Key words: <i>Accumulation capacity, Heavy metal uptake, Metal ions, Moss, Pollution Monitoring</i></p>	Full Text
24	<p style="text-align: center;">The Cost of Climate Change in Tanzania: Impacts and Adaptations Ceven Shemsanga¹ Anne Nyatichi Omambia¹, Yansheng Gu¹ ¹ School of Environmental Studies, China University of Geosciences, Wuhan 388 Lumo Road, Wuhan, 430074, Hubei Province, P.R. China. 7ceven@gmail.com</p> <p>Abstract: In recent years, Tanzania has witnessed a number of climate related disasters namely, flooding, droughts, widespread crop failures, livestock deaths and intensification of climate sensitive diseases among others. Regular climate discussions in the country have often underestimate crucial problems related to climate change like chronic energy crisis and influx of people to urban areas arguably because of failing agriculture in farming areas. This paper has highlighted the fact that the poor, usually with limited resources and who contribute the least to the causes of climate change are the most affected in many ways. In addition, it gives a detailed account of the issues of climate change in Tanzania and explains the effects of climate variability using examples. The effects of climate change in the country are widespread and significantly interfere with agriculture, while at the same time, reducing the ability of the society to deliver services. Indigenous knowledge such as survival skills and coping mechanisms adopted by different societies in Tanzania, have been discussed in the paper. Such coping mechanisms however are overwhelmed by the impacts of climate change on the people. Different institutions including the government have taken some positive steps towards combating climate change; however the efforts done so far are insufficient. In addition, addressing climate change in Tanzania is hindered with inadequate resources, corruption and poor coordination and implementation of combating measures. Generally current climate variability in the nation is an issue of concern for all future plans and must be addressed. [Journal of American Science 2010; 6(3):182-196]. (ISSN: 1545-1003).</p> <p>Keywords: Climate change, Tanzania, Adaptations, Responses.</p>	Full Text
25		
26		
27		
28		
29		
30		
31		
32		
33		

For back issues of *the Journal of American Science*, [click here](#).

Emails: editor@americanscience.org; americansciencej@gmail.com



| | | © 2005. AmericanScience.org