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Study on Puzzles with Multicolored Cubes

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Abstract

In this paper we first introduce some graph theoretic terms and examples. We apply an example that shows how a graph model can be used to analyze a manufacturing problem. Then the puzzles with multicolored cubes are solved by using graph theory. Since these puzzles can be solved in two steps; firstly, the physical problem is converted into problem of graph theory and secondly, the graph theory problem is solved.

မြိတ်ဒေသီယစကား

ဝေင်စေင်ယု

စာတမ်းအကျဉ်း

ဤစာတမ်းသည် မြန်မာဘာသာစကား၏ အသွင်ကွဲစကားတစ်ခုဖြစ်သော “မြိတ်ဒေသီယစကား” ကို စကားသံအဆင့်မှစတင်မိတ်ဆက်တင်ပြထားသည့် စာတမ်းဖြစ်ပါသည်။ ယင်းနောက် မြိတ်ဒေသီယဝေါဟာရများကို စံစကားရှိဝေါဟာရများနှင့် နှိုင်းယှဉ်ပြထားပါသည်။

ဘလ္လာတီယပျို့မှ ပါဠိနှင့်ပါဠိသက်ဝေါဟာရများကို ဘာသာဗေဒရှုထောင့်မှလေ့လာခြင်း

နှင်းထွေး*

ဇာတမ်းအကျဉ်း

ဤဇာတမ်းသည် ဘလ္လာတီယပျို့တွင်တွေ့ရှိရသော ပါဠိနှင့် ပါဠိသက်ဝေါဟာရများကို ဘာသာဗေဒရှုထောင့်မှ လေ့လာတင်ပြထားပါသည်။ နိဒါန်းပိုင်းတွင် ပါဠိနှင့်ပါဠိသက်ဝေါဟာရများ မြန်မာဘာသာသို့ ဝင်ရောက်လာပုံ၊ ဝင်ရောက်လာသည့်နည်းလမ်းများကို အကျဉ်းမျှဖော်ပြထားပါသည်။ ပါဠိသက်ဝေါဟာရများကိုဖော်ပြရာတွင် ဘာသာဗေဒနယ်ပယ်တွင်အသုံးပြုသည့်နည်းစနစ်များနှင့်အညီ ထုတ်နုတ်တင်ပြထားပါသည်။ ဤလေ့လာချက်သည် ရှေ့ပြေးလေ့လာချက်သာဖြစ်ပါသည်။

The Role of Reasoning for the Real Knowledge

Win Nyunt *

Abstract

The purpose of this paper is partly to solve the problem whether only reasoning is a source of the real knowledge or not. In searching the real knowledge, many philosophers assume that only reasoning is a source of human knowledge. This paper presents the role of deductive reasoning as well as the degree of non-deductive reasoning that are sources of human knowledge.

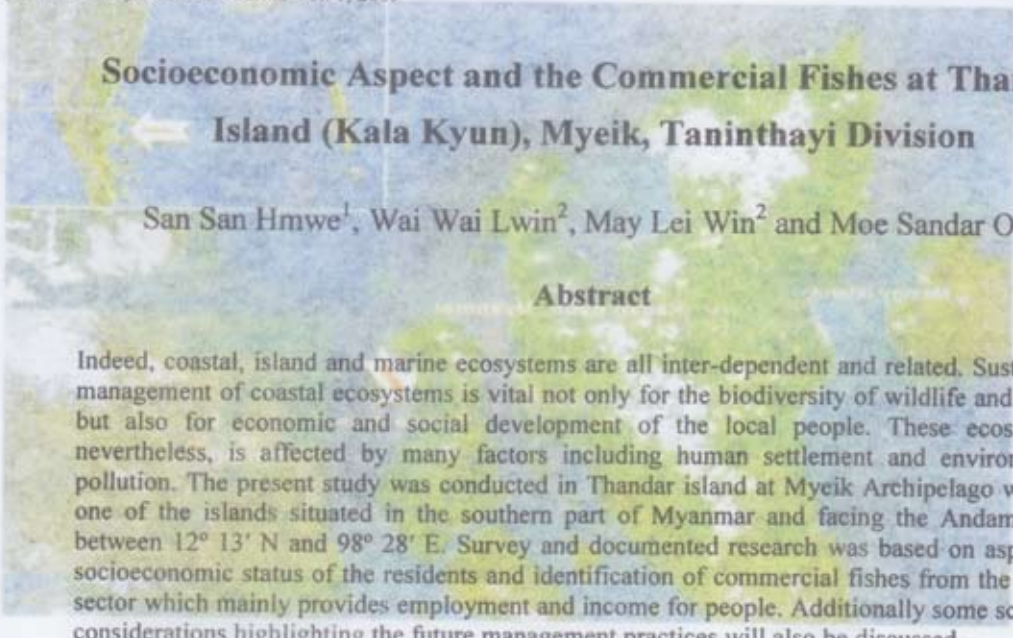
Introduction

Analysis of Fourier series Using Programmable Interface Controller

Kyaw Lwin Htoo *

Abstract

In this research work the programmable interface controller (PIC) and electrically erasable programmable read only memory (EEPROM) are used to generate the different forms of waves. Digital data required to display the waveforms are created by Microsoft Excel using analytical expressions. By using the C++ program software, a program is written in the computer. This program controls the transfer of digital data from Excel work sheet into the EEPROM. The digital data are written into the EEPROM via a writer circuit. By the use of Pic Basic programming language a control program for the PIC is also developed and the program is downloaded into the PIC by means of a programmer circuit. Wave generator circuit is constructed with the electronics components: (i) programmable interface controller (ii) electrically erasable programmable read only memory (iii) digital to analog converter (iv) operational amplifier (v) data latch IC type of (74373) and (vi) counter IC type of (74164). The digital data from the EEPROM are changed into analog signals by a digital-to-analog converter (DAC). These analog signals can be fed into an oscilloscope for the visual display of generated waves. Some Fourier series equations can be expressed as waveforms. By the use of generator circuit and oscilloscope the waveforms correspond to Fourier series can be displayed.



Socioeconomic Aspect and the Commercial Fishes at Thandar Island (Kala Kyun), Myeik, Taninthayi Division

San San Hmwe¹, Wai Wai Lwin², May Lei Win² and Moe Sandar Oo²

Abstract

Indeed, coastal, island and marine ecosystems are all inter-dependent and related. Sustainable management of coastal ecosystems is vital not only for the biodiversity of wildlife and fishery but also for economic and social development of the local people. These ecosystems, nevertheless, is affected by many factors including human settlement and environmental pollution. The present study was conducted in Thandar island at Myeik Archipelago which is one of the islands situated in the southern part of Myanmar and facing the Andaman Sea between 12° 13' N and 98° 28' E. Survey and documented research was based on aspects of socioeconomic status of the residents and identification of commercial fishes from the fishery sector which mainly provides employment and income for people. Additionally some scientific considerations highlighting the future management practices will also be discussed.

Key Words: Coastal ecosystem, socioeconomic and fishery sector, coastal management

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Commercial Product Cinnamon from East Asia Market

Khin Thantsin*

Abstract

In order to clarify the botanical origin of "cinnamon", TLC analysis results of twelve samples of cinnamon stick from eight East Asia countries were studied and compared with eleven possible species of Genus *Cinnamomum*. The results showed that the major botanical origins of "cinnamon" in the market are *C. cassia* in China, Japan and Hong Kong; *C. burmannii* in Thailand; *C. zeylanicum* in Laos and Myanmar; and *C. burmannii* and *C. zeylanicum* are in Singapore. All the commercial cinnamon in this investigated samples possessed cinnamaldehyde but they showed quality differences in TLC result.

Determination of the Constituents of Water from Maliwun Hot Spring in Kawthaung Township

Cho Cho Win¹, Myint Ngwe², Su Su Aung³

Abstract

This research paper is the study of physical, chemical and bacteriological properties of water sample from Maliwun hot spring which is situated in Kawthaung Township, Tanintharyi Division, Myanmar. The physicochemical characteristics such as, smell, appearance, conductance, pH, total hardness, total dissolved solids and total alkalinity have been investigated. The chemical constituents of cations such as, Na^+ , Ca^{2+} , Mg^{2+} , K^+ , Fe^{2+} and anions such as Cl^- , SO_4^{2-} , HCO_3^- , CO_3^{2-} have also been determined. These results are remarked as chemically potable. In addition, the bacteriological report of this water was found to be satisfactory.

Key words: Physicochemical characteristics, bacteriological properties, cation, anion, conductance, potable.

Designing an ESP Course for Myanmar Air Hostesses

Thi Thi Tun¹, Mya Mya², Ning Khen Cing³, Sabai Oo⁴

Abstract

ESP Learners are supposed to master the technical terms in the specific disciplines as well as the English language skill. This paper explores the possibility of establishing aviation English as an ESP course in specialty of Airlines in Myanmar. Need Analysis has been made and course design for an integrated course of study in Myanmar Context so that learners of ESP can learn the target language more effectively and meet the standard set by the International Civil Aviation Organization. It reconsiders the ESP Theory and aims to develop a possible approach to ESP Teaching more suitable for Myanmar learners. This project is to ensure these research questions:

- 1) What Language Activities develop learners' fluency and accuracy?
- 2) What are learners' views of these activities?

Keyword: Aviation English, Need Analysis, Curriculum Design

Environmental Impact of Human Activities: The Case of Bokpyin Township

Wah Wah Win*

Abstract

Bokpyin Township is one of the richest natural resources areas of Myanmar. Local people have been exploiting these resources for their living times since immemorial. Not being very densely populated area and not having good accessibility, the degradation of natural resources of Bokpyin Township before 1990 was quite insignificant compared with other areas in Myanmar. After 1990, implementation plans were introduced so that the urban system of Bokpyin Township has gradually improved and its natural environment has also suffered from the impact of developmental processes. Moreover, the practices of exploiting natural resources have varied over the past ten years. At present, although some implementation plans has been carried out, natural resource degradation of the environment can be seen. Although the problem may not be very urgent at present time, it should be noted. As a preliminary stage, this paper tries to give some knowledge to local people how to conserve and protect their valuable natural environment in time.

Key words: Environmental impact, conservation, human activities,

Bokpyin Township.

Preliminary Study on the Geology and Mineral Occurrence of Katan Island

Theingi Kyaw¹, Win Win Htay² and Myo Thiri Sandar Aung³

Abstract

In the Katan (King) Island, there occur different rock units from which igneous, metamorphic and also the sedimentary units are mainly exposed. The sedimentary units are mostly unfossiliferous. Igneous rocks which are commonly grinitic rocks and Dacite/Rhyolite porphyry are Mesozoic in age whereas the metamorphic units of Gneiss-Granite Gneiss, whitish Quartzite, Green Quartzite, and Calc-phyllite-quartzite are Early Paleozoic in age. The sedimentary units mainly composed of quartzose sandstone-shale with minor grits, conglomerates and limestones are comprised in the Mergui Group of Late Paleozoic. In some places, the Quaternary units of alluvial sediments are covering the rock exposures. Most of the grinitic ridges are covered by lateritic soil with some common outcrops of intensely folded, contorted, metamorphosed fine-grained, blue grey argillites that altered to phyllites or even mica schist with pyroxenes and garnet.

Key words: granitic rocks, Mergui Group, lateritic soil

The Administration of Sittway District (1826–1885)

Hnin Aye Khine Swe*

Abstract

Myanmar fought three wars against the British and lost Yakhine and Taninthayi in 1826, Bago in 1852 and the whole of Myanmar in 1885. The British assumed the task of ruling Yakhine since 1826. At first Yakhine and Taninthayi were separately administered under direct supervision of the Governor General of India. Then Yakhine was transferred to the Government of Bengal and its superintended subordinate to the Commissioner of Chittagong. The administration of Yakhine was transformed from time to time due to the system adopted by the British Government for the management of the country.

Study on the Biology of the Pearl Oyster at Pearl Farming Station, Palè Kyun Waters

Nyo Nyo Tun¹, Htay Aung²

Abstract

The pearl oyster species commonly found in southern Myanmar waters is scientifically known as *Pinctada maxima*. This pearl oyster species is native to Myeik Archipelago waters and found to be associated with crystalline clear oligotrophic coral waters to enable pearl production, the process of hatchery and grow-out culture of pearl oysters in Myanmar Pearl Enterprise at Palè Kyun, carry out the tasks like temperature shock treatment, killing the mother oysters to get sperm and eggs for fertilization, rearing 6 larval stages until settlement, doing spat collection, transferring healthy spat to natural waters and on-growing for one and a half year for maturity. This paper explains the process of hatchery, rearing and cultured pearl production coupled with salient biological condition of oyster. Measures to be taken to make the southern Myeik waters healthy for sustainable pearl production are discussed.

Key words: *Pinctada maxima* (Jameson), native, hatchery, on-growing