Sample No. 1:

Original Text:

Indigenous Knowledge of Ecological Variability and Commons Management: A Case Study on Berry Harvesting from Northern Canada

Common property arrangements govern the subsistence harvest of berries in the Gwich'in region of the Northwest Territories, Canada. Some of these arrangements, including rules for resource access, sharing information and harvest sharing, enable the Gwich'in to deal with ecological variability. The rules change in response to year-to-year variations in the abundance and distribution of the species, spatially and temporally across the region. This paper illustrates the interrelationships between ecosystem dynamics and local institutions, a neglected area of commons research.

Paraphrased Text:

Indigenous Knowledge of Ecological Variability and Commons Management: A Case Study on Berry Harvesting from Northern Canada

Subsistence harvesting of berries in the Gwich'in region of the Northwest Territories, Canada, is managed using common property arrangements. Among these arrangements are principles for accessing resources, sharing information and sharing harvest data, enabling the region to deal with ecological variability. Yearly variations in species abundance and distribution, spatially and temporally across the region, causes to change these principles. This study aims at investigating interrelationships between ecosystem dynamics and local institutions, a previously neglected research area.

Sample No. 2:

Original Text:

Elections, recession expectations and excessive debt: an unholy trinity

In the literature, it has been suggested that political budget cycles are context-conditional, i.e., do not occur in all countries or under all circumstances. What about the underlying economic conditions? It has already has been shown that recessionary expectations reinforce the political budget cycle. This paper argues theoretically that opportunistic policymakers expecting a recession during an election year allow the primary deficit to increase even more when the stock of debt is very high, but reduce the deficit by more during an expected boom (in an election year). For the empirical estimation we use panel data from Portuguese municipalities. Plots of average marginal effects for election years show that differences between high- and low-debt municipalities become more pronounced in stronger expected recessions as well as booms; the stronger effect on the deficit in high-debt municipalities is caused by changes on both the revenue and the expenditure side. A whole armada of robustness tests (non-linear effects, alternative specifications of excessive debt and forecasts, various methods to account for time effects and clustering, several sample restrictions) confirms our results.

Elections, recession expectations and excessive debt: An unholy trinity

The literature believes political budget cycles to be context-conditional, meaning that not all countries experience these cycles under all circumstances. With regard to the underlying economic conditions, recessionary expectations have been shown to reinforce political budget cycles. It was theoretically argued in this study that opportunistic policymakers further increase the primary deficit when the stock of debt is extremely high during a recession in an election year; however, they further reduce the deficit in an expected boom during this period. Panel data from Portuguese municipalities were used for empirical estimation. It was revealed in the plots of average marginal effects for election years that high- and low-debt municipalities had more pronounced differences during recessions stronger than expected as well as during booms. Moreover, it was also demonstrated that changes on the revenue and the expenditure side caused strong effects on the deficit in high-debt municipalities. The results were confirmed using robustness tests (non-linear effects, alternative specifications of excessive debt and forecasts, methods to account for time effects and clustering, and several sample restrictions).

Sample No. 3:

Original Text:

Sustainable design of pervious concrete using waste glass and recycled concrete aggregate

This study designed an eco-friendly pervious concrete (PC) product using waste glass cullet (WGC) and recycled concrete aggregate (RCA) by dry-mixed compaction technique. The mechanical properties, water permeability behavior and related pore structure characteristics, thermal conductivity of the PCs were determined. The experimental results showed that the use of silica fume in the cement paste was effective to compensate for the low compressive strength of the PCs due to the use of narrowed graded aggregates without the incorporation of fine particles (less than 2.36 mm). Although the incorporation of recycled aggregates (i.e., WGC and RCA) into the PCs led to reductions in compressive strength, the water permeability of the PCs was improved, especially for the PCs prepared with WGC, as the use of WGC was conducive to improving the water permeability due to the negligible water absorption nature and smooth surface of glass cullet. Another encouraging result indicated that the PCs comprising 50% WGC as the fine aggregate and 50% RCA as the coarse aggregates could achieve satisfactory strength and permeability, which could largely meet the requirement of the standard (JIS A 5371) for permeable pedestrian pavers. The appropriate blending of the selected size of WGC (2.36-5mm) and RCA (5-10mm) to produce a desirable pore structure in the PCs were responsible for the good performance. In addition, the low thermal conductivity of the produced PCs provided an opportunity to use the PC as partition block materials for saving energy consumption of buildings.

Paraphrased Text:

Sustainable design of pervious concrete using waste glass and recycled concrete aggregate

In this research, an environmentally-friendly pervious concrete (PC) is fabricated based on recycled concrete aggregate (RCA) and waste glass cullet (WGC) via dry-mixed compaction method. For this purpose, it was tried to determine water permeability behavior, mechanical properties, pore structure characteristics, the and thermal conductivity of the PCs. According to the test results, using silica fume in the cement paste was highly advantageous in compensating the poor compressive strength of the PCs. This poor strength characteristic was induced due to using narrowed graded aggregates without incorporating fine particles (< 2.36 mm). Despite the reduced compressive strength of the PCs due to incorporating recycled aggregates (i.e., WGC and RCA), an increase was observed in their water permeability. This result is especially noticeable for the PCs prepared using WGC. In this regard, incorporating WGC to the PCs results in the improved water permeability because of the smooth surface of glass cullet and negligible water absorption. Another promising result of this study is that the PCs consisting of 50% RCA as the coarse aggregates and 50% WGC as the fine aggregate provide satisfactory permeability and strength. These two characteristics are in good agreement with the requirement of the standard (JIS A 5371) for permeable pedestrian pavers. The suitable blending of the selected size of RCA (5-10mm) and WGC (2.36-5mm) for creating a desirable pore structure in the PCs was responsible for their effective performance. Furthermore, the low thermal conductivity of the produced PCs allowed using them as partition block materials in order to save energy use of buildings.

Original Text:

Scheduling in cloud manufacturing: state-of-the-art and research challenges

For the past eight years, cloud manufacturing as a new manufacturing paradigm has attracted a large amount of research interest worldwide. The aim of cloud manufacturing is to deliver on-demand manufacturing services to consumers over the Internet. Scheduling is one of the critical means for achieving the aim of cloud manufacturing. Thus far, about 158 articles have been published on scheduling in cloud manufacturing. However, research on scheduling in cloud manufacturing faces numerous challenges. Thus, there is an urgent need to ascertain the current status and identify issues and challenges to be addressed in the future. Covering articles published on the subject over the past eight years, this article aims to provide a state-of-the-art literature survey on scheduling issues in cloud manufacturing. A detailed statistical analysis of the literature is provided based on the data gathered from the Elsevier's Scopus abstract and citation database. Typical characteristics of scheduling issues in cloud manufacturing are systematically summarised. A comparative analysis of scheduling issues in cloud manufacturing and other scheduling issues such as cloud computing scheduling, workshop scheduling and supply chain scheduling is also carried out. Finally, future research issues and challenges are identified.

Scheduling in cloud manufacturing: Latest research challenges

As a new manufacturing paradigm, cloud manufacturing has attracted the attention of numerous researchers across the world in the past eight years. Cloud manufacturing is aimed at delivering on-demand manufacturing services to consumers over the internet. Scheduling is a fundamental means for fulfilling the objective of cloud manufacturing. At least 158 articles have so far been published on scheduling in cloud manufacturing; nevertheless, research on scheduling in cloud manufacturing faces numerous challenges. Determining the status quo and identifying the future issues and challenges are therefore essential. The present article seeks to investigate the articles published on the subject over the past eight years to determine the latest scheduling issues in cloud manufacturing. The data collected on literature from Elseiver's Scopus as the largest abstract and citation database of peer-reviewed literature were statistically analyzed. Typical features of scheduling problems in cloud manufacturing were also systematically summarized. Moreover, a comparative analysis was performed for scheduling issues in cloud manufacturing and issues in other areas such as cloud computing scheduling, workshop scheduling and supply chain scheduling. Issues and challenges in future research were ultimately identified.

Sample No. 5:

Original Text:

Amplification chemistries in clinical virology

Molecular diagnostic methods have evolved and matured considerably over the last several decades and are constantly being evaluated and adopted by clinical laboratories for the identification of infectious pathogens. Advancement in other technologies such as fluorescence, electronics, instrumentation, automation, and sensors have made the overall diagnostic process more accurate, sensitive, and rapid. Nucleic acid-based detection procedures, which rely on the fundamental principles of DNA replication have emerged as a popular and standard diagnostic method, and several commercial assays are currently available based on different nucleic acid amplification techniques. This review focuses on the major amplification chemistries that are used for developing commercial assays and discusses their application in the clinical virology laboratory.

Paraphrased Text:

Amplification chemistries in clinical virology

Molecular diagnostics have significantly evolved and matured in recent decades, and have been constantly evaluated and adopted by clinical laboratories to identify infectious pathogens. Advances made in other technologies such as fluorescence, electronics, instrumentation, automation and sensors have also made the overall diagnostic process more accurate, sensitive and rapid. Moreover, nucleic acid-based detection procedures have emerged as popular and standard diagnostic methods which rely on the fundamental principles of DNA replication. Today, several commercial assays are available based on different nucleic acid amplification techniques. The present review article focuses on the major amplification chemistries used for developing commercial assays and discusses the applications of these chemistries in clinical virology laboratories.