

<https://www.scientific.net/AMM>

The screenshot shows a web browser window with the URL `scientific.net/AMM`. The browser's address bar and tabs are visible at the top. The website's header includes the **Scientific.Net** logo and navigation links for **DISTRIBUTION & ACCESS**, **FOR PUBLICATION**, **DOCU CENTER**, **ABOUT US**, and **CONTACT US**. A search bar is located below the navigation menu.

The main content area is divided into a left sidebar and a main panel. The sidebar, under the **Journals** tab, lists several journals, with **Applied Mechanics and Materials** selected. The main panel displays the journal's title, **Applied Mechanics and Materials**, with the ISSN **1662-7482**. Below the title are three tabs: **Details**, **Volumes**, and **Editorial Board**. The **Volumes** tab is active, showing a search box for "Enter Number of Volume" and a list of volume numbers (1, 2, 3, 4, 5, ...). The current volume displayed is **Applied Mechanics and Materials Vol. 900**, edited by Yunn Lin Hwang, with an online date of July 2020. A description of the volume's content is provided below.

At the bottom of the browser window, the Windows taskbar is visible, showing the system tray with the date **7/15/2020** and time **12:42 PM**.

<https://www.scimagojr.com/journalsearch.php?q=4700151914&tip=sid>

The screenshot shows the Scimago Journal & Country Rank website. The browser's address bar displays the URL: [scimagojr.com/journalsearch.php?q=4700151914&tip=sid](https://www.scimagojr.com/journalsearch.php?q=4700151914&tip=sid). The website header includes the Scimago logo, the text "Scimago Journal & Country Rank", and a search bar with the placeholder text "Enter Journal Title, ISSN or Publisher Name". The navigation menu contains links for Home, Journal Rankings, Country Rankings, Viz Tools, Help, and About Us.

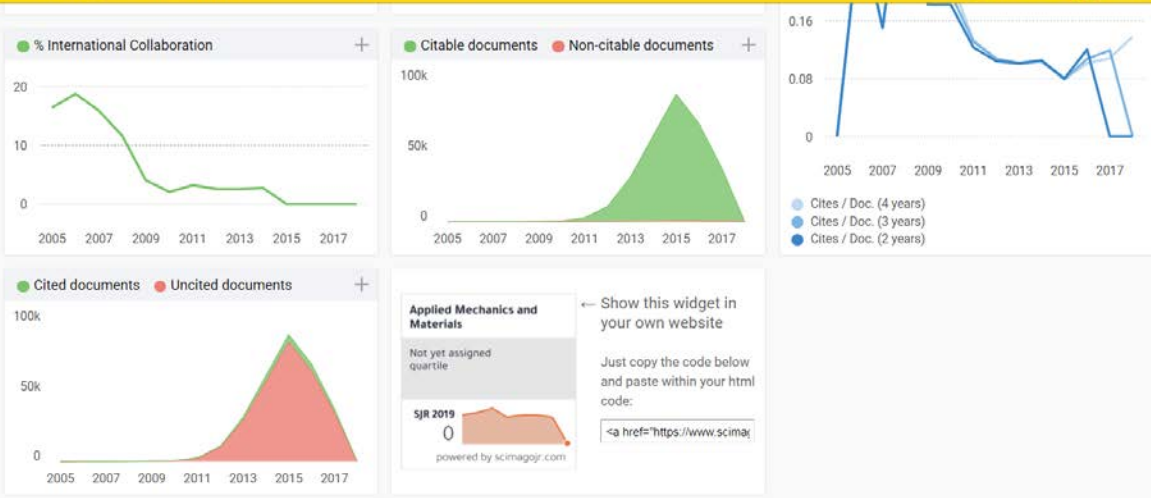
The main content area features an advertisement for Google, with buttons for "Stop seeing this ad" and "Why this ad?". Below the ad, the journal title "Applied Mechanics and Materials" is displayed in a large, bold font. Underneath the title, it states "discontinued in Scopus as of 2014".

A cookie consent banner is visible, stating "This website uses cookies to ensure you get the best experience on our website" with a "Got it!" button. The Windows taskbar at the bottom shows the system tray with the date and time: 12:53 PM, 7/15/2020.

The journal details are as follows:

Country	Switzerland - IIII SIR Ranking of Switzerland
Subject Area and Category	Engineering Engineering (miscellaneous)
Publisher	Trans Tech Publications
Publication type	Book Series
ISSN	16609336
Coverage	2005-2015
Scope	"Applied Mechanics and Materials" is a peer-reviewed journal which specializes in the publication of proceedings of international scientific conferences, workshops and symposia as well as special volumes on topics of contemporary interest in all areas which are related to: 1) Research and design of mechanical systems, machines and mechanisms; 2) Materials engineering and technologies for manufacturing and processing; 3) Systems of automation and control in the areas of industrial production; 4) Advanced branches of mechanical engineering such as mechatronics, computer engineering and robotics. "Applied Mechanics and Materials" publishes only complete volumes on given topics, proceedings and complete special topic volumes. We do not publish stand-alone papers by individual authors.

The H Index is displayed as a large number "29" with the label "H Index" below it. A "Homepage" link is located at the bottom of the journal details section.



1. <https://www.scientific.net/AMM.793.192>

The screenshot displays the Scientific.Net website interface. The top navigation bar includes links for 'DISTRIBUTION & ACCESS', 'FOR PUBLICATION', 'DOCU CENTER', 'ABOUT US', and 'CONTACT US'. A search bar is located below the navigation. The main content area is divided into two columns. The left column, titled 'Paper Titles', lists several articles with their respective page numbers. The right column features the selected paper, 'Palm Oil as the Cooling Liquid in Single Phase Transformer for Better Efficiency', with its abstract and metadata. The abstract discusses the importance of mineral oil in transformers and the potential of vegetable oils as alternatives. The metadata section provides details such as the journal name, editors, page numbers, DOI, citation information, authors, keywords, and price. Social media sharing icons for Facebook, Twitter, and LinkedIn are visible on the right side of the page. The Windows taskbar at the bottom shows the system time as 1:19 PM on 7/15/2020.

Paper Titles

- An Improved Switching Strategy for Single Phase SPWM Inverter to Reduce Power Loss and Total Harmonic Distortion p.172
- Permanent Magnet Synchronous Generator Based Standalone Wave Power Conversion System for Sustainable Power Supply at Perhentian Island p.177
- The Effect of Harmonic Distortion on the Performance of Differential Relay for Distribution Transformer Protection p.182
- Efficiency Improvement of Single Phase Transformer Using Virgin Coconut Oil

Palm Oil as the Cooling Liquid in Single Phase Transformer for Better Efficiency

911 16

Abstract:

The important purpose of mineral oil in transformer is to be insulant and it is role of being a coolant. Petroleum based oil is commonly used because it has a good dielectric strength and cooling performance. However, the application of mineral oil brings negative impact to the environment such as oil spills, leakage, explosion and soon petroleum based oil will be running out for future generation used. Thus, vegetable oil is chosen as an alternative to replace mineral oil for transformer insulation liquid. Formerly, most of Malaysian researches were focusing on the properties of the vegetable oils rather than investigate the effect on the transformer performances after the vegetable oils are applied. Hence, this paper focuses on the performance of the transformer before and after vegetable oils are applied. For this paper, refined palm oil is used as insulation liquid for a single-phase step down transformer which use the 220 V supply and 50 Hz frequency. Transformer is connected to 110V induction motor as load and has been test in two conditions, dry and after palm oil is applied. Comparison is made from both results and clearly shown a good Improvement when palm oil is used as insulation oil.

Info:

Periodical: **Applied Mechanics and Materials (Volume 793)**

Edited by: **Gomesh Nair a/I Shasidharan, Muhammad Irwanto, Muhammad Mokhzaini Azizan and Baharuddin Ismail**

Pages: **192-196**

DOI: **<https://doi.org/10.4028/www.scientific.net/AMM.793.192>**

Citation: **[Cite this paper](#)**

Online since: **September 2015**

Authors: **A.A.H. Zaidi*, Nuriziani Hussin, Dina Maizana**

Keywords: **High Voltage, Insulation Oil, Palm Oil, Transformer Oil, Vegetable Oil**

Export: **RIS, BibTeX**

Price: **36,00 €**

Permissions: **[Request Permissions](#)**

Share: [f](#) [t](#) [m](#) [e](#) [+](#)

* - Corresponding Author