CALRAD

Future

Vision

Pakistan

E-Learning

AND HE IS WITH YOU WHEREVER YOU ARE

Al Quran[57:4]

Table of
Contents

Assessment of Bacterial Contamination on the Hands Assessment of Poultry Butchers and Determination of Mdr Resistance Salmonella

Sadaf Tagar and Naveed Ahmed

Abstract

Background: Hands play a vital role in the prevention of infectious diseases as most of them are caused due to the transmission of microorganisms spread by contaminated hands.

Objective: The present study was conducted in Hyderabad and Jamshoro districts of Pakistan to assess the handwashing practices of poultry butchers using a questionnaire survey.

Methodology: Microbial assessment of hands of butchers was also carried out by using some standard microbiology techniques. Three hygiene indicator bacteria were targeted in this regard, namely, *Salmonella, Shigella, and E. coli. Moreover, for Salmonella, antibiotic resistance was also carried out against the commonly used antibiotics.*

U.S. Pakistan Center for Advanced Studies in Water, Mehran

University of Engineering and Technology, Jamshoro, 76062, Pakistan

Results: Survey results revealed that none of the slaughtering facilities had any hand washing station, clean rinsing water, soap/hand wash, or any other hand washing facility. Microbial analysis revealed that 35 (92.1%), 37 (97.3%), and 38 (100%) of hand samples were positive for Salmonella, Shigella, and E. coli. The results of the disc diffusion test revealed that 89.4% of isolates were resistant to ampicillin, 2.5% to azithromycin, 26.3% to gentamicin, 26% to cefotaxime, 34.2% to erythromycin, 27% to streptomycin, and 2.6% to sulphamethoxazole. None of the isolates showed resistance to ceftazidime. Out of 35 isolates, 25 isolates were Multidrug-resistant (MDR), and one isolate (2.85%) was extremely drug-resistant (XDR). **Conclusion:** The study concludes the presence of Salmonella, Shigella, and E. coli in poultry slaughterhouse workers. The high prevalence of Salmonella, Shigella, and E. coli can transfer to the meat and cause many foodborne infections in meat con-sumers. Moreover, the high resistant profile of Salmonella spp. can cause treatment failure against Salmonella infections.

JOB BANK

Research Assistant I Lab

Harvard Medical School
(Senior postdoc in the field of Genetic code Expansion).

56627BR

Apply

Postdoctoral Researcher - Research Computing

Kennesaw State University, Georgia

232355

Apply

Postdoctoral Associate

State University New York

Atmospheric Science

Apply

Role of Probiotics in Prevention and Treatment of Colon Cancer

D. Maknoon Razia, S. Hussain, D. Najoom Bazgha, A. Habib

Abstract

Cancer is one of the fatal conditions whose treatment is still in doubt. Various synthetic agents and (standard) chemotherapeutic drugs in treating cancer are not efficient. Researchers are trying to find competent clinical management for cancer as synthetic agents develop drug resistance, affect the quality of life, and are also not affordable to the patients. The purpose of this study is to highlight the importance of probiotics in preventing and treating cancer. Probiotics are actually living organisms that provide health benefits to the hosts (when administrated). Probiotics help control urogenital infection and diarrhea, alleviate lactose intolerance, reduce the level of cholesterol, and relieve the patients from bowel syndrome. Due to antioxidant potential, probiotics are beneficial for treating chronic diseases like cancer. The use of probiotics as vital dietary supplements is efficient in managing the side effects of radiation therapy, chemotherapy, and surgery. Proper administration of probiotics can reduce the   inflammation of intestinal mucosa as they rebalance the gut microbiota and modulate the immunity of the gastrointestinal tract. Probiotics metabolome interferes in the progression of colon cancer. Short-lived metabolites (from milk) after getting fermented with Streptococcus thermophilus and Lactobacillus bulgaricus strains have efficient role in neutralizing the risk factors of colon carcinogenesis. Due to the ingestion of probiotics, those components that are genotoxic to the colon are excreted in small concentrations from urine, and those components that encourage oxidized DNA bases are excreted in high concentrations.

Therefore, research on the anticarcinogenic property along with the mechanism of action (particularly in treatment) of specific probiotics is desirable and important. Clinical trials should be conducted for the approval of probiotics validation as an alternative to colon cancer therapy from the medical community.

Department of Biochemistry, Government College University Faisalabad, Faisalabad 38000, Pakistan

College of Physical Therapy, Government College University Faisalabad, Faisalabad 38000, Pakistan

Laboratory of Molecular Immunology, School of Life Sciences, Fudan University, Shanghai, China

Journal Recommendation Service

In order to accelerate your publication work CALRD can help you select most suitable journal for your research work.

Contact us

WhatsApp: 03041026343
info@calrdintl.org

For more detail visit
https://calrdintl.com

LOCATE POWER METER IN DISTRIBUTION SYSTEM BASED ON POWER FLOW ANALYSIS AND VOLTAGE DROP METHOD

Muhammad Wajid Bashir, Nomaan Khan Dasti

Abstract

Electricity is a major source for achieving goal of economic growth and fulfill power necessities of a nation. Electricity production has increased substantially as it has become a major requirement in a country's development, but the consumption and production of electricity should be balanced. To keep consumption synced to production, power companies are facing many hindrances and challenges due to electricity theft and wastage of electricity because of various faults and difficulties in pin pointing the exact fault location. We propose a method to analyze data of smart energy meters and determine exact location of energy meter from Transformer. It can be helpful for finding the location of power meters in distribution system. Proposed method has been tested for various power consuming nodes and it is observed that location of power meter is independent of power consumption by different nodes which is highly recommended for practical use. Our Method to analyze data depends only upon the number of consumers. Results can be improved by increasing the number of consumers. This proposed method is very convenient for maintenance, troubleshooting, minimizing the illegal usage of power and fault detection. We used power flow analysis and voltage drop technique to pin point near about exact location. Already existing method to find location by using satellite was having deficiencies as it was not accurate in indoor environment but our proposed methodology is best fit to overcome such shortcomings.

Department of Electrical and Power Engineering

Department of Electronic and Information Engineering

Xian Jiao Tong University

Full Paper Link: 10.5281/zenodo.5732469

JOB BANK

Research Associate

Electrical and Computer Engineering
University of Virginia
R0031492
[Apply](#)

Post Doctoral Fellow

Agricultural Sciences
P0414F
Auburn University
[Apply](#)

Research Post Doc - Department of Chemistry

Syracuse University
Syracuse, NY
[Apply](#)

Evaluation of Biological Properties of Pure Biofine Chemicals and Aroma Substances From Cannabis Sativa Essential Oil

Saima, N., Adnan, A., Naveed, M.R

RBS 2021

1st International Conference on Research in Biological Sciences

Abstract

Essential oils are a mixture of bioactive chemicals that are useful to humans as therapeutics and preservatives. The essential oils of Cannabis sativa have been tested for their antioxidant, fungicidal, bactericidal and cytotoxic properties. A maximum of 0.035% extraction was found at 110°C. Caryophyllene, trans-α-bergamotene, humulene, and cis-β-farnesene in different percentages were major components to more than 29 major and minor identified in each oil of C.sativa via GC-MS analysis. Separation is done using a fractional method. The total phenolic content was found to be 13.42-13.83 and 11.24-14.68 mg GAE/ml; the total flavonoid content was 14.12-14.22 and 10.78-15.39 mg CE/ml, and the estimated content of proanthocyanidin was 8.91-10.46 and 7.16-11.31 mg VE/ml of C.sativa essential oil and fractions, respectively. Antioxidant activity was tested with DPPH• intake of 20.55-26.26% essential oil and 37.77% high in F1 of 110°C essential oil. The ability to reduce ferric ions was set at 2.4-2.69 mg/ml, and the maximum reduction potential of 2.78 mg/ml was F5 of 120°C essential oil at 0.3 mg/ml concentration. The high inhibition of linoleic acid peroxidation was shown by F4, 25.67% of 130°C extracted by the essential oil. Antibacterial values 19.33mm, 19.67mm, 19.82mm zone of inhibition and antifungal activity 20.15mm, 22.13mm, 22.26mm zone of inhibition indicated by F1, F5 and F4 of 110°C, 120°C and 130°C extracted oil Cannabis essential oils are sequential. Similarly, MBC and MFC are also shown with these components. The concentrations of brine shrimp cytotoxicity 20ppm and 25ppm have been shown by F1 and essential oils collected at 110°C. Sativa oil controls cancer and antibacterial properties as used in medicine.

Department of Chemistry

Department of Physics

University of Education Lahore, Multan Campus

Flower identification using deep neural network – Bloom:

Ali Hamza, Touqeer Abbas, M Ahmad Khan

aleehamza25@gmail.com, abastouqer@gmail.com, ahmad.khan586297@gmail.com

Supervisor: Dr. Abdul Razzaq (MNSUAM)

abdul.razzaq@mnsuam.edu.pk

There are thousands of species of plant & flowers & it's very difficult for any individual to remember each & every flower with precise details however currently there is no any reliable application for students & researchers to identify flowers with reliable results.

The reason behind it is that Deep Learning Algorithms required much specified, high quality & precisely labelled data. While there are still chances of error because of similarity in flowers so we captured images with specific methods to gain a high-quality dataset. In this project, we initialize a model that can identify plant flowers with reliable prediction according to a specific data-gathering technique. First of all, we gathered data in different time periods (day-light & evening) & Angles - entire plant, flower frontal- and, flower top. We gathered 10 classes of data in this initial project & for each class, there are approximately 200 images.

First, we trained the model on SSD MobnetV2 Algorithm so that we can make Android Application but the results were not satisfying, so later the object detection Algorithm we used is Faster R-CNN with Inception V2. We design a model in a way that it can classify an image with localization so that it can identify multiple flowers in a single image even of different classes. Our final aim was to train data set on 200000 steps using GPU. The Results were satisfying with up to 100% accuracy confidence & 86.3 % mAP (mean Average Precision)

After successfully training the model, we deployed the model on Web Application using the Django framework. Currently, the Web application is deployed on local host soon we will make it live on www.
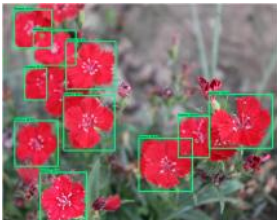
JOB BANK

Post-Doctoral Research Associate

(4 Positions) - Plant Science - Research
University of Tennessee, Knoxville
Knoxville, TN
[Apply](#)

Burpee Post-Doctoral Fellow in Botany

Bucknell University
Lewisburg, PA
[Apply](#)

Post Doctoral Fellow- Radiology Research Labs

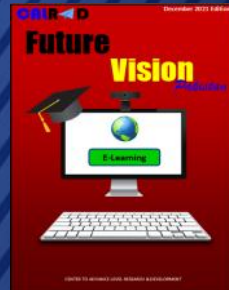Emory University
Atlanta, GA
[Apply](#)

HAPPY NEW YEAR!

2022

CALR∆D

CENTER TO ADVANCE LEVEL RESEARCH AND DEVELOPMENT (SMC-PRIVATE) LIMITED.
+923041026343.
info@calradintl.com
www.calradintl.com

VIRTUAL
Research Support Center

ISSUE 1
December 2020

ISSUE 2
April 2021

ISSUE 3
December 2021

Center To Advance Level Research & Development

http://calrdintl.com

info@calrdintl.org