ABSTRACT BOOK OF 5TH INTERNATIONAL CONFERENCE ON APPLIED ENGINEERING AND NATURAL SCIENCES ICAENS 2023

ABSTRACT BOOK OF 5TH ICAENS 2023:

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INTRODUCTION

We had the great honor of organizing the 5th International Conference on Applied Engineering and Natural Sciences ICAENS 2023. It was truly a great pleasure for us to greet a lot of participants from many different countries attending ICAENS 2023! We firmly believe that the conference will become an important international event in the field of cross-industry discussion about innovations in Academic Studies.

Three cooperating organizations supported the four-day conference. There were 508 papers accepted for presentation at ICAENS 2023, contributed from different countries. We had plenary speeches and several well-known scientists and experts, to give invited talks at different sessions.

The purpose of ICAENS 2023 was to provide a forum for the participants to report and review innovative ideas, with up-to-date progress and developments, and discuss novel approaches to the application in the field of their own research areas and discuss challenges of doing science.

We sincerely hope that the exchange of ideas on doing research, science and improving education will help the participants, and international cooperation sharing the common interest will be enhanced.

On behalf the Organization Committee of ICAENS 2023, we would like to heartily thank our cooperating organizations for all they have done for the conference. We would also like to thank the authors for their contribution to the proceedings; the participants and friends of ICAENS 2023, for their interest and efforts in helping us to make the conference possible; and the Editorial boards for their effective work and valuable advice, especially the ICAENS 2023 secretariat and the ICAENS 2023 staff, for their tireless efforts and outstanding services in preparing the conference and publishing the Proceedings.

Asst. Prof. Dr. Umut Özkaya

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5TH INTERNATIONAL CONFERENCE ON APPLIED ENGINEERING AND NATURAL SCIENCES ICAENS 2023

JULY 10-12, 2023

25.07.2023

10-12 Temmuz 2023 tarihlerinde MEET üzerinden çevrimiçi olarak gerçekleştirilen 5th International Conference on Applied Engineering and Natural Sciences ICAENS 2023 konferansı akademik teşvik yönetmeliğinin 9. Maddesine istinaden "Tebliğlerin sunulduğu yurt içinde veya yurt dışındaki etkinliğin uluslararası olarak nitelendirilebilmesi için Türkiye dışında en az beş farklı ülkeden sözlü tebliğ sunan konuşmacının katılım sağlaması ve tebliğlerin yarıdan fazlasının Türkiye dışından katılımcılar tarafından sunulması esastır." kriterlerini sağlamaktadır. Toplam 508 adet bildirinin yer aldığı kongre üç gün boyunca çevrimiçi olarak gerçekleştirilmiştir.

Türkiye dışından toplam 30 farklı ülkeden (Fas, Cezayir, Fransa, Almanya, Ürdün, İran, Moldova, Kosova, ABD, Slovenya, Kuzey Makedonya, Çin, Pakistan, Arnavutluk, Azerbaycan, Hindistan, Irak, İtalya, Macaristan, Ukrayna, Kamerun, Nijerya, Malezya, Birleşik Arap Emirlikleri, Tunus, Slovakya, Birleşik Krallık, Çek Cumhuriyeti, Portekiz, Suudi Arabistan) katılım sağlanmış olup, 508 adet bildirinin 284 (%55,90) tanesi yabancı katılımcı tarafından sunulmuştur.

Kongremize ilginiz için teşekkür ederiz.

Saygılarımızla,

Asst. Prof. Dr. Umut Özkaya

Congress' Coordinator

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The effects of ripe and unripe banana flours originated from bananas grown in Mersin on Muffin Cakes

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Abstract – In this study, it is aimed to produce banana flour by going through the processes of washing, peeling, slicing, soaking in acid solution, straining, drying, grinding and sieving of ripe and unripe bananas. The mineral composition, moisture, ash, protein, fat content, water absorption, oil and water holding capacities and colour analysis of ripe (RBF) and unripe banana flours (URBF) were determined. These banana flours (BF) were added in certain amounts by replacing the wheat flour (WF) in muffin cakes formulations. The effects of BF on the functional, textural and sensory properties of 4 types of muffins with different flour ratios of RBF, URBF and WF were analyzed. The flour percentages were 10/40/50, 10/50/40, 20/30/50, and 20/40/40 for RBF, URBF and WF respectively. Control cake with %100 WF were also included in the study. It was determined that the increase in the ratio of RBF in the formulation increased the moisture percent of muffins. Ash percent of all muffins are higher than the control cake. Hardness and springiness were not affected negatively in any ratios of BF therefore, it was determined that the texture and sensory properties of all formulations were within acceptable limits. As a result of this study, certain ratios of banana flour addition were successfully achieved in terms of consumption habits and processing.

Keywords – Banana, Unripe Banana Flour, Ripe Banana Flour, Sensory Analysis, Textural Analysis, Muffin.

ACKNOWLEDGEMENT

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