MSA

University

October University for
Modern Sciences and Arts

DISTINGUISHED GRADUATION PROJECTS

2018 - 2019

Message from MSA University Head of Board of Trustees

As the global community moves into the 21st century, the significance of educating a new generation of entrepreneurs and transformative leaders equipped with the intellectual perspective of liberal learning and tools is as important as any other time in history.

The ability to think critically, to write and speak clearly, to make ethical judgments, to innovate and accelerate innovative concepts, build entrepreneurial mindsets and to understand the fundamental economic forces, these are the qualities essential to effective leadership in our ever-changing global environment. These are the essences and hallmarks of a MSA education.

Producing career-ready graduates has always been central to our mission. Through a process that includes career exploration and professional preparation, we connect you with career paths and foster the skills and mindset needed for professional advancement.

Dr. Nawal El Degwi

Head of Board of Trustes

Message from MSA University President

We are committed to the relentless pursuit of excellence in education and research. The MSA community is deeply committed to contributing to a better future for Egypt. Our success can be contributed to many factors: our talented and dedicated faculty, the energy, enthusiasm and inventiveness of graduate and undergraduate students, the dedication and support of excellent staff, the passion of our alumni to make a difference in their communities, the support and active engagement of our international partners.

We aspire to position MSA as a research-intensive and student-centred university, which fosters an institution-wide commitment to creating a strong, healthy future for our students and for our local and global communities and to become a national leader in many areas of critical research and creative endeavor. We take pride that our faculty are committed and inspiring teachers that, offer our students a research-enriched education complemented by applied, clinical and work-integrated learning opportunities.

In the Distinguished graduation yearbook, we proudly see results to all of the above.

With your research and innovation, I look forward to seeing where that momentum will take us next as I am confident that you can.

Prof.Dr. Khayri Abdel-Hamid

University President

FACULTY OF

ARTS & DESIGN

The Cairo International Film Festival

Abdelaziz
Elwassify
163585

PROJECT DESCRIPTION

To put The cairo international film festival back on the right track, the festival got a proper rebranding with a strong identity which is based on blending the ancient Egyptian theme with modern cinema. to attract the targeted audience and motivate people to attend or participate in the festival. Both the new image and campaign of the festival contain elements of the Egyptian culture that helps people relate to the festival and feel personally touched by it.
Concept in brief: The cairo international film festival is an extension to the ever-living Egyptian pharaonic story telling


Where Action Begins
11th of november
CAIRO
Opera House
Where Acting Begins
11th of november
CAIRO
Opera House
Where Cinema Begins


Logo Trials
45th
CAIRO INTERNATIONAL
FILM FESTIVAL
Logo Anatomy
Old logo
40th CAIRO
Color Codes
Logo variations

Greater Cairo

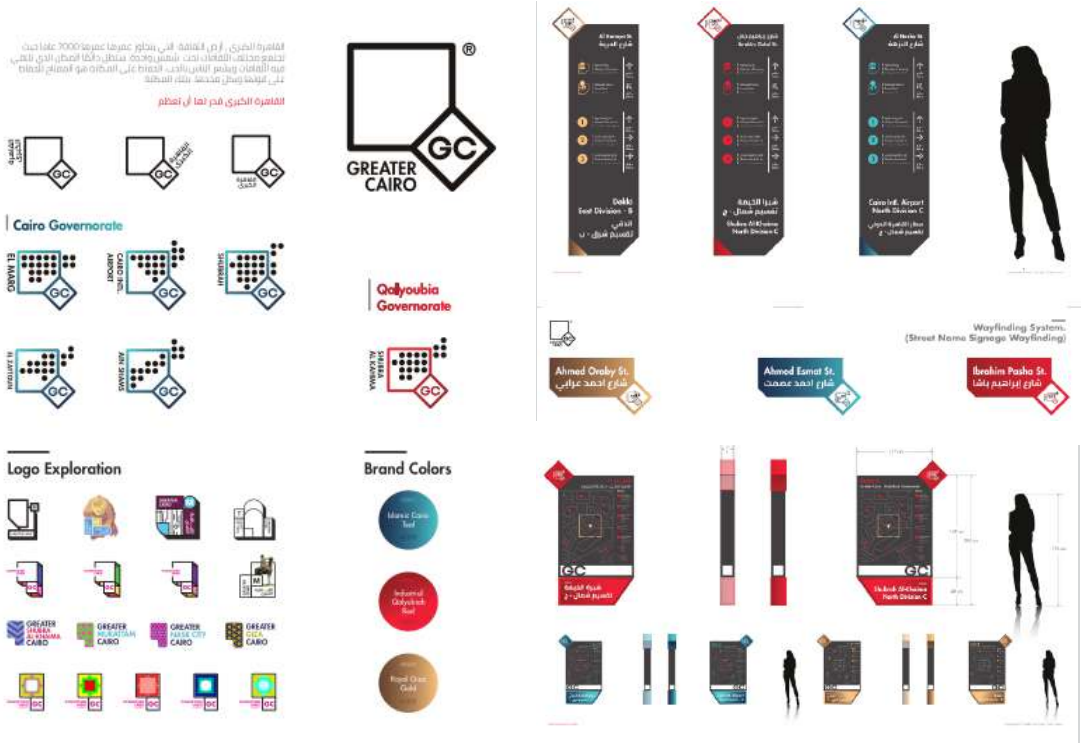
Marwan
Sameh
161663

PROJECT DESCRIPTION

The concept of city branding is an emerging trend in the field of graphic design and tourism. As per Egypt's 2030 vision, offering a new take on the visual identity of greater Cairo .
The concept was to create a unifying brand identity for the capital as it has diverse cultures and governorates. the solution was using a dynamic identity that would be neutral to all cities yet give them a modern look.
The colors were chosen upon the feel and the uniqueness of the governorate. choosing the dots to represent cities as it is a neutral element that represents all cultures, new and old

Outdoor Poster Advertisements

Indoor Poster Advertisements

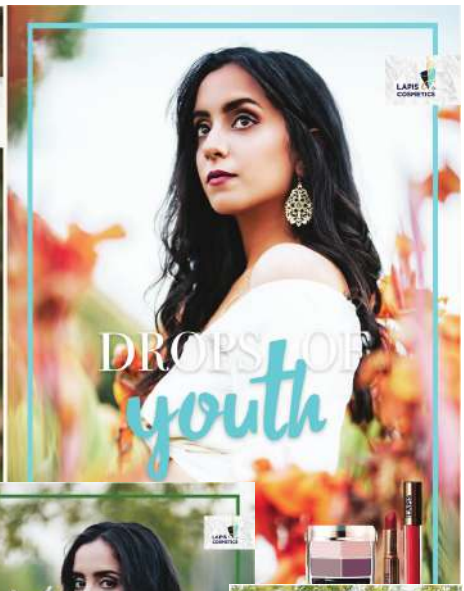


Lapis Cosmetics

Hedeya
Ashraf
165411

PROJECT DESCRIPTION

women are precious, in order transfer precious into visual elements, gems and gold are considered key-words that became the main inspiration behind the name of the brand lapis a dark blue gemstone
The logo is drawn as a gemstone with curved edges to be timeless and edgy and to present luxury with a modern tone and the l is wrapped around it with a delicate curve The campaign is created with the feel of floral and natural vibe to transfer the message of youth and natural beauty. the poster is created with the feel of nature to send a message about the importance of natural beauty that lapis has to offer



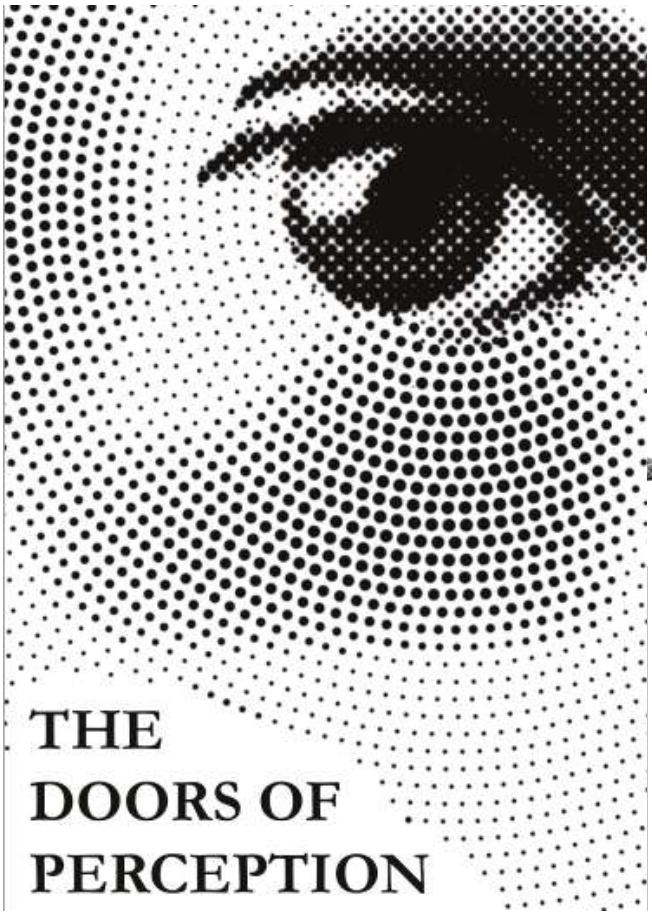
Arts and Design: Graphics and Media Arts

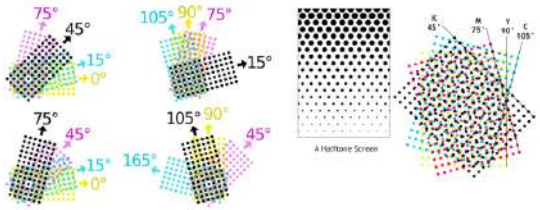
The Veil of Perception

Bishoy
Laurance
163461

PROJECT DESCRIPTION

Reality and truth are always confusing . The hidden stories always play the biggest role in creating the reality we perceive and the background behind what we perceive these series of circumstances and the daily experience and situations creates a behavior that the perceiver acted Therefore affecting the reality we perceive, that's when a "Veil of Perception" is created between the objective truth we perceive and the reality that is behind the veil which created the whole moment we perceived . in Conclusion "That which knows all things and is known by none is the subject."


THE
DOORS OF
PERCEPTION


75°
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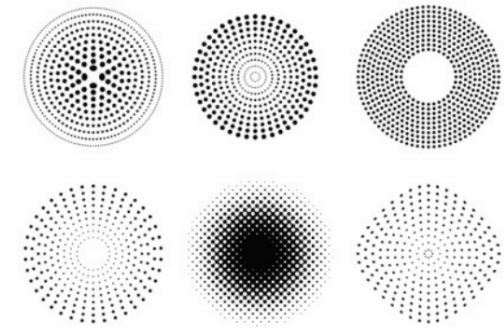
45°
165°
A Halftone Screen


THE
DOORS OF
PERCEPTION
Aldous Huxley



The Red String

Salma
Salah
165067

PROJECT DESCRIPTION

using a red string , a creative mother crafted her days and problems away . until one day her sons bird friend needed help, she crafted, wrapped and tied bits and pieces to help him, but her creation has gone out of control and the whole world got strung together by red string to make one monstrous entity


THE Red STRING
Plot
Using the red string, a creative mother crafted her days and problems away. Until one day, her son's bird friend needed help. She crafted, wrapped and tied bits and pieces to help him, but her creation has gone out of control and the whole world got strung together by the red string to make one monstrous entity.
Character design
Final Shots + Storyboard
Concept
Finding patterns and meaning is human nature, our creativity helps us to perceive connection between things, even if nonsensical. Our pattern detection device helps us survive, but can also take undesired turns. Due to our differences we can see different patterns, different meanings, different solutions and different realities.
Apophenia: a phenomenon that explains when we perceive meaning/pattern off random data.


A SHORT ANIMATION BY SALMA SALEH
THE Red STRING


follow..
THE Red STRING
by: salma saleh

Historical museum in El Alamein new city

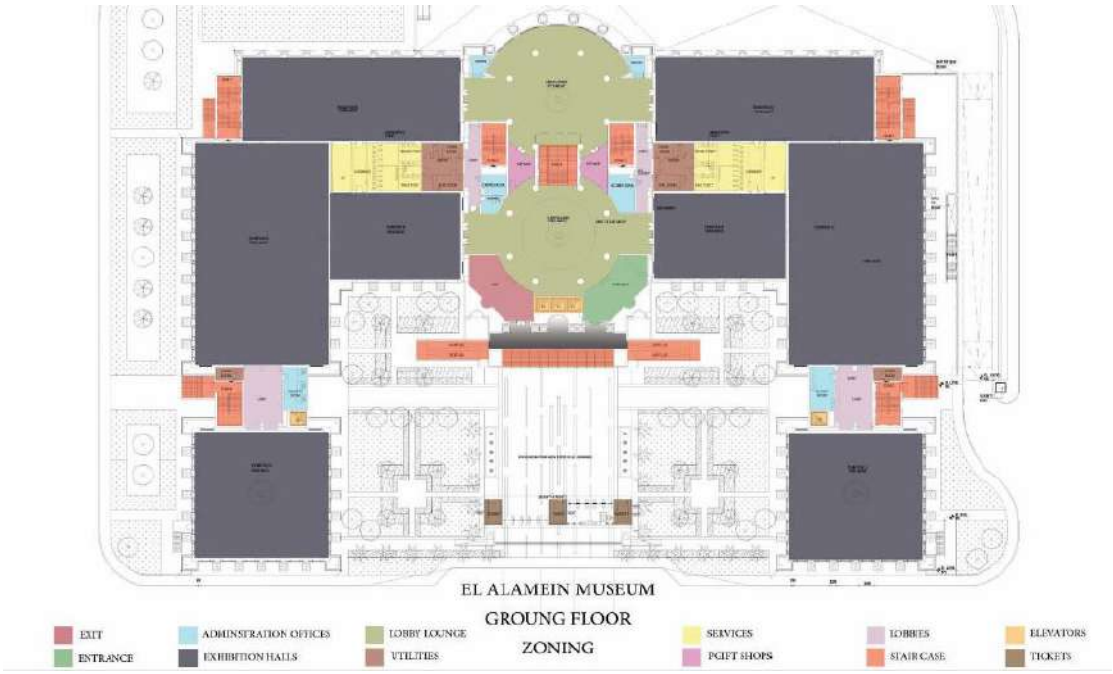
Shorouq Essam

162773

PROJECT DESCRIPTION

The Museum of the new city of El Alamein is a new historical museum under construction, while preserving the Egyptian identity and highlighting the historical icons with the latest technologies.
The three chosen zones are:

1. Entrance
2. Lobby lounge
3. Exhibition hall


EL ALAMEIN MUSEUM
GROUNG FLOOR
ZONING
EXIT
ENTRANCE
ADMINSTRATION OFFICES
EXHIBITION HALLS
LOBBY LOUNGE
UTILITIES
SERVICES
PGIFT SHOPS
LOBBIES
STAIR CASE
ELEVATORS
TICKETS


EL-ALAMEIN

Darb 1718 Renovation (Arts and Culture Center)

Hana Ahmed Assem
165033

PROJECT DESCRIPTION

This project is the renovation of Darb 1718. It was originally built in 2002; yet Darb as a non-profit contemporary arts and culture hub initiated in 2008 to motivate and embrace diversity, art and freedom of expression.
Project aim is to renovate this center to be a state of arts; an actual hub for artists from around the world. This is to be done by following the concept of space and time (Einstein's theory) and a touch of Egyptian identity implementation, an embracing of our own unique personality throughout the world.

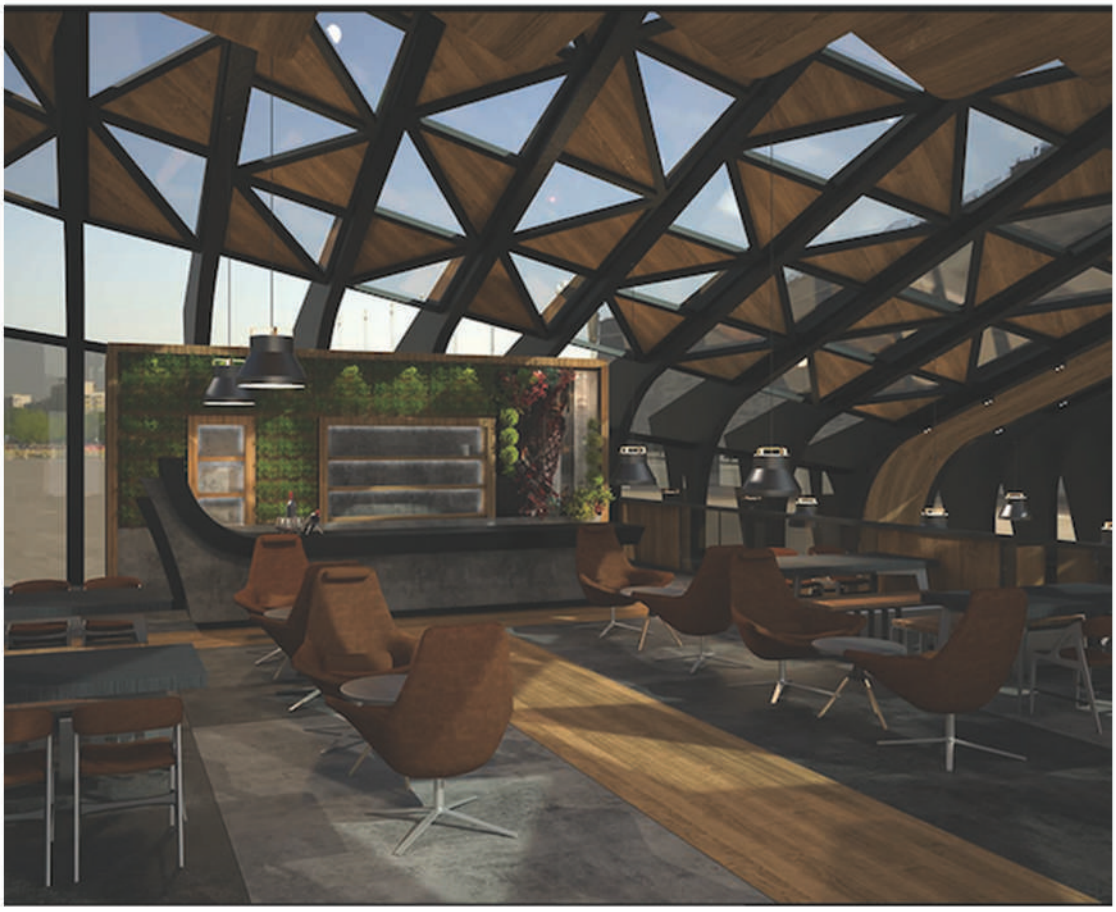
Commercial market in Sheikh Zayed

Ali Mostafa

164821

PROJECT DESCRIPTION

Creating a compatible relationship between the street vendors retailers and Elegant community. Creating a design concept blending the main elements of rural vendors in a contemporary way that suit the Sheikh Zayed community and its architectural philosophy.

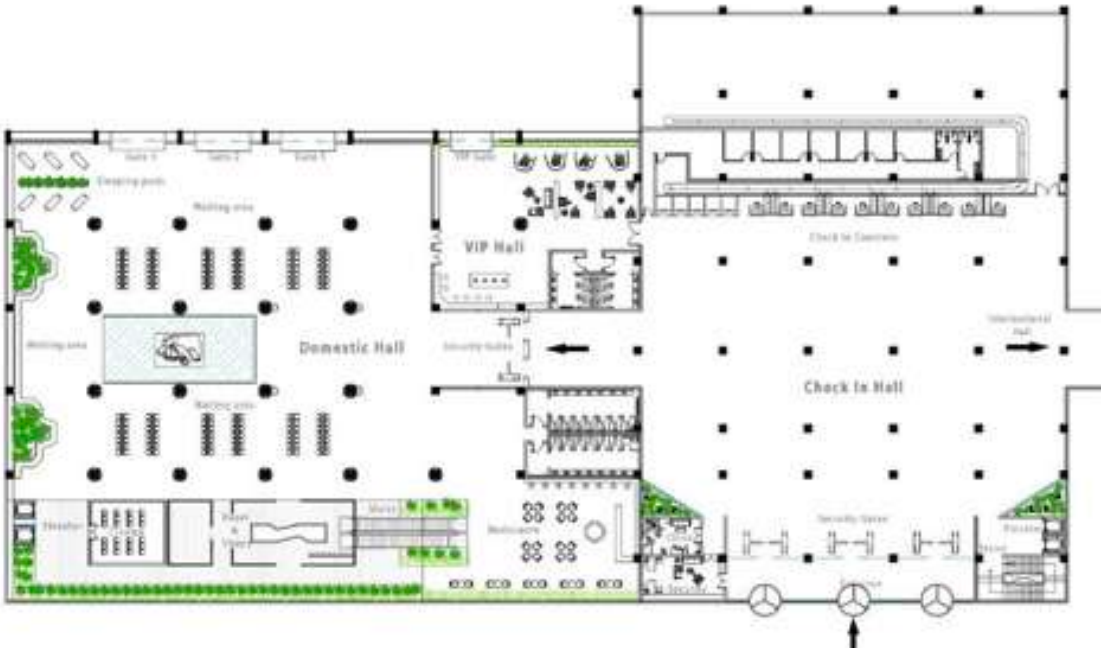


Renovation of Aswan international airport

Mostafa Mohamed Emad
154125

PROJECT DESCRIPTION

Nut is goddess of the sky and symbol of resurrection and rebirth in the ancient Egyptian as expressed in funerary texts and iconography
The airport terminal is the gate from ground to the sky for the passengers. Be in the sky after waiting at the ground is the most important thing for the passenger like the ancient Egyptian beliefs in relive after death.
-This concept going to be applied through the design by making the passengers feel the motion of flow from


VIP Hall
Domestic Hall
Check In Hall


Aswan AirPort

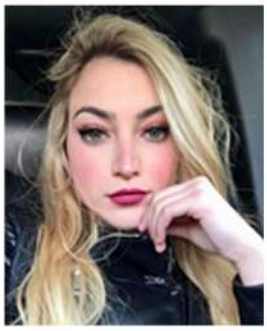
Collection Inspired By The Women's Awakening Of 1919 Revolution Using Sustainable Techniques

Mohanad Alaaeldin Mohamed Mahmoud Aglan
165277

PROJECT DESCRIPTION

Creating sustainable Ready to wear fashion collection inspired by the Women Awakening movement during the period of the Egyptian revolution 1919. Reflecting the power of women and their persistence. Targeting women between the ages of 30 to 40.

Sustainable Women's wear Inspired by the Levant Countries (Byblos in Lebanon)



Jana Hicham
Zaki Hodroj
153709

PROJECT DESCRIPTION

Creating a womenswear collection Inspired by the microcosmic city of civilization (Byblos in Lebanon), adding on illustrations and achieving the sustainable techniques by using natural fabrics.

WOMEN'S WEAR INSPIRED BY NUBIA IN EGYPT AND SUDAN.

Noureen Yasser Mohamed Mahmoud Amin
162661

PROJECT DESCRIPTION

A ready to wear collection translating the trend of spring/summer 2019 using sustainable techniques Inspired by old and modern Nubian culture to fit the feminine and unique target market to shed the light on the forgotten history of Nubia will forever be in the Nubians heart and soul.

SUSTAINABLE FASHION COLLECTION INSPIRED BY THE SYRIAN CRISIS.

Tuka Bashar Samarah
174851

PROJECT DESCRIPTION

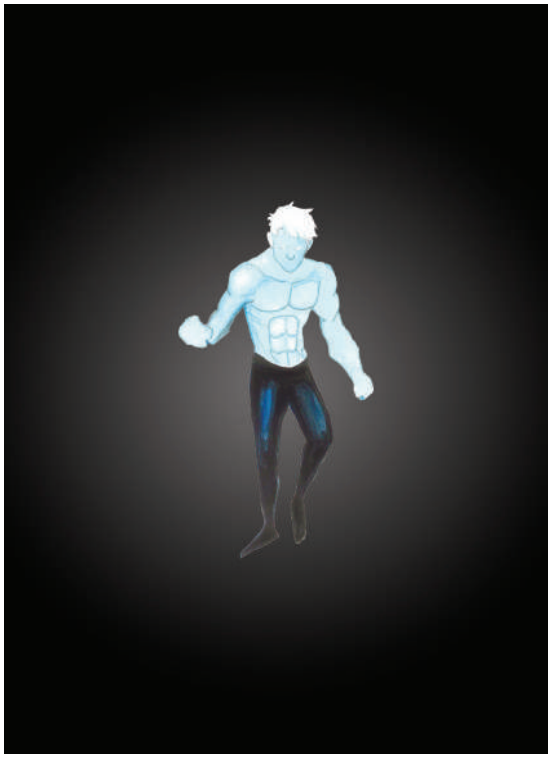
A sustainable ready to wear collection for women inspired by the Syrian crisis, specifically by comparing the country situation before and after the crisis. The message behind this collection is to show that hope is always there and Syria will return better than it was.

Ready Player One

Amr Mohamed El Samra
154663

PROJECT DESCRIPTION

The purpose of is study is to convert the novel "Ready Player One" into a cinematic adaptation. "Ready Player One" is a dystopian science-fiction novel written in 2011 by Ernest Cline, most of the novel's events are based on a virtual reality game, how it affects people's lives extracting them from the real world and simulating different sides of the character. The study outlines and analyzes the novel's characters, main locations, the selected scenes and case studies from similar materials using data and findings explored throughout the research to help illustrate the design process. The research features a concept chosen by the researcher which best suits the adaptation analytically and visually. The concept employed is drugs, which is confirmed in the study to indicate a lot of similarities with videogames and moreover highlights the moral of the novel which is "As terrifying and painful as reality can be, it's also the only place where you can find true happiness." (James Halliday, 38)

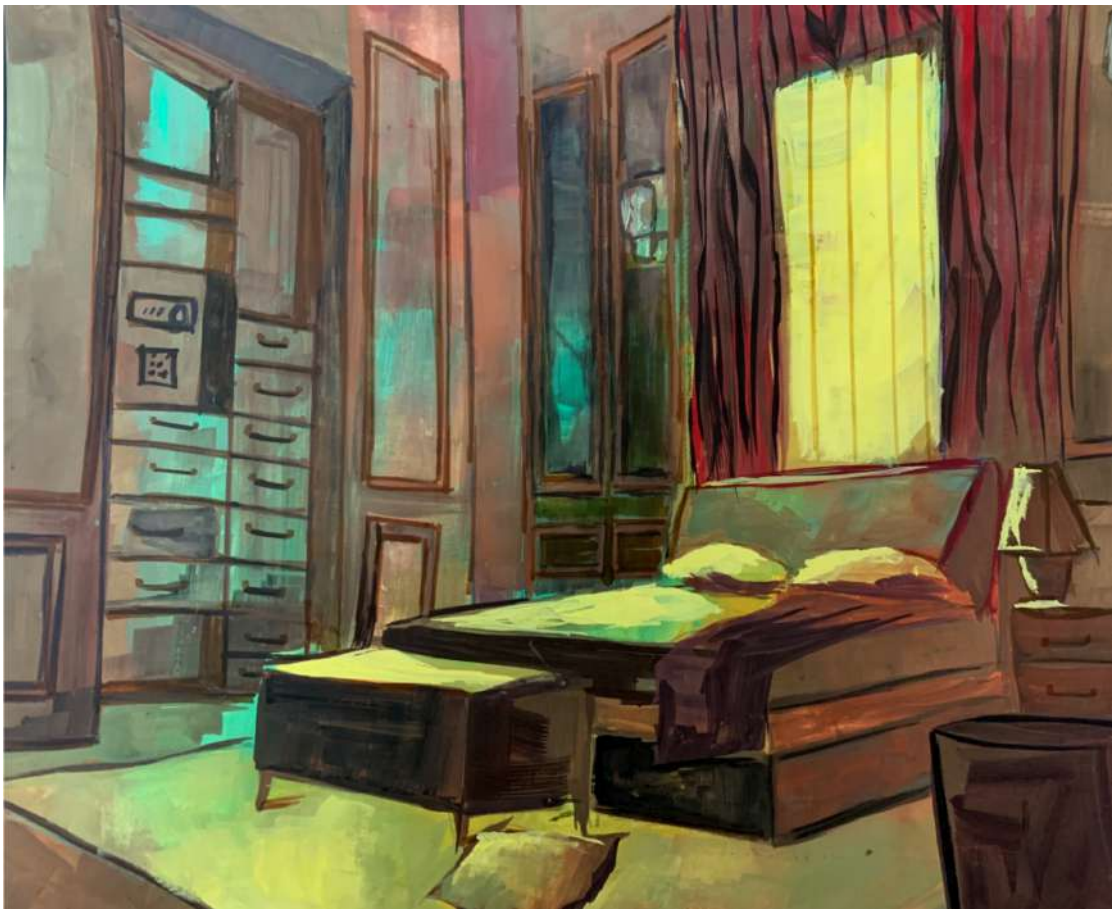


Two Officers

Dunya Muhammed
Shalaby Khalil
153277

PROJECT DESCRIPTION

The story focuses on real Egyptian events, within the police force. Yousef highlights problems of corruption and the lasting damage created by the individuals involved in this incident. Yousef investigates a system in which power prevails over innocence The narrative frame is characterized by rapid pace, and quick transitions, moving the audience from one scene to another seamlessly. The novel grips you in the conflict between 'good' and 'evil? What is stronger 'power' or 'money'? This leaves the audience with open-ended questions: will this tyranny, injustice, and manipulation of positions power end one day or will they continue to prevail? The study focuses on the characters, with regards to the aesthetics of costumes and environments using comparative methods.



Words on bathroom walls

Hadeel Mahmoud Shalaby SEDDIK
164903

PROJECT DESCRIPTION

It is a novel about teen dealing with the coming of age issues, in addition to suffering from schizophrenia and fearing people's judgment. The objective of this project is not only to demonstrate the feelings and symptoms a schizophrenic deals with, but also to focus the light of this disease and how it affects the patient's life, their family and loved one, and most importantly to use this project/film to change the stigma around this illness and how it's patients are not a danger to anyone around them. A psychological and physical concept, which includes feelings and nature elements, will be used to reach people's emotions and mind to accept schizophrenic patients and learn more about the illness by giving the viewers an insight into the patient's life.


Hummingbird


beginnings

Those Who Returned

RANA SEDDIK MOHAMED MOUSSA
163161

PROJECT DESCRIPTION

Those Who Returned represents the inner instability of human before and after death. It represents the immortality of their absurd life no matter how time and place change. So when we talk about ethics and humanity, we need to mention the devil who started to refuse and accept making deals. He is the source of the mental corruption and the physical damage, but he could be incarnated as an idea, human, or society's agenda. Here we will understand that everything takes time to grow and destroy its owner. So Khaled Amin focused on Egypt, especially in Cairo where people are contradictory because of pressure, ignorance, and the concept of "what is abnormal will be some day normal."

FACULTY OF

BIOTECHNOLOGY

Comparative genomic study of post natal blood samples from patients suffering from infertility using Array CGH

دراسة لمقارنة الجينوم باستخدام دم ما بعد الولادة لمرضي يعانون من العقم باستخدام Array CGH

Merna Mohamed Fathy

162251

Host place: Cell Safe cord blood Bank
Internal Supervisor: Prof. Ayman Diab
External Supervisor: Prof. Hisham Eissa

ABSTRACT

Infertility is the inability to conceive off-springs after 12 months of frequent mating. It is caused by hormonal, physiological and environmental misbalancing. Moreover, Premature ovarian failure, endometriosis and polycystic ovarian syndrome causes female infertility. Therefore, the enrolled project is about comparative genomic study of post natal blood samples of females suffering from infertility using Microarray CGH. Blood samples were collected from the patients by the host institution. Interpretation of results were done using Agilent feature extraction and cytogenomics software. Results showed deletions and amplifications in genes located on chromosomes associated with infertility.

Keywords: CGH Array, postnatal, and infertility.

العقم هو عدم القدرة على الحمل بعد 12 شهرًا من التزاوج المتكرر .وهو ناجم عن اختلال التوازن الهرموني والفسيولوجي والبيئي .وعلاوة على ذلك ، يسبب الفشل المبايضالمبكر ، وبطانة الرحم ، ومتلازمة المبيض المتعدد الكيسات العقم عند النساء ، والتي ستتم مناقشتها في هذه الدراسة فيما يتعلق بالجينات المرتبطة بهذه الأمراض .ولذلك ، فإن المشروع الملتحق يدور حول دراسة الجينوم المقارن لعينات دم ما بعد الولادة .

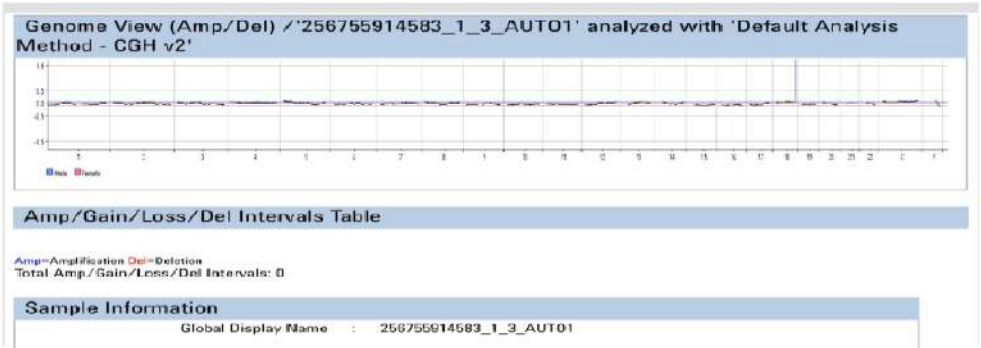


Figure 1: Graph represents deletion in chromosome 15q25.2 region and amplification in chromosome 18q11.2.

Significance of Platelet, AFP & Liver function tests in Diagnosis of Hepatocellular Carcinoma.

أهمية فحوصات الصفائح الدموية والبروتين ألفافيتو وظائف الكبد في تشخيص سرطان الكبد

Nada Hassan ElGazzar

16115

Host place: Meta Labs
Internal Supervisor: Dr. Hossam Taha
External Supervisor: Dr.Mohamed Hussien

ABSTRACT

Hepatocellular carcinoma is defined as a tumor of the liver and is classified as the primary liver cancer as it is a malignant tumor composed of hepatocytes cells. It's one of the most common malignancies in adults, and is extra common in men than women. The aim of this study is the diagnosis of hepatocellular carcinoma as significance correlation to platelet, alpha-fetoprotein and liver enzyme function tests as bilirubin, GGT, ALT and AST to 128 patients in egyption population by using automated ELISA technique for screening blood tests, hematology analyzer for counting platelet and automated kinetic detection of liver enzyme function tests.

Keywords: Hepatocellular carcinoma, platelets, and AFP

يُعرف سرطان الخاليا الكبدية بأنه ورم في الكبد ويصنف على أنه سرطان الكبد الاساسي لأنه ورم خبيث يتألف من خاليا كبدية .انها واحدة من أكثر الأورام الخبيثة شيوعا في البالغين ، وهي شائعة جدا في الرجال أكثر من النساء و كان معدل الوفيات 100.000 وفاة في السنة .غالبية سرطان الكبد HCC يبدو أن سببها تليف الكبد من فيروس التهاب الكبد B المزمن و التهاب الكبد الوبائي .C ولذلك فإن الهدف من هذه الدراسة هو تشخيص سرطان الكبد و علاقتها بالصفائح الدموية وألفا فيتوبروتين واختبار انزيمات الكبد ASTفي 128مريضا من السكان المصريين باستخدام التقنية الليلة ELISAلفحص اختبارات الدم، محلل الدم لعد الصفائح الدموية و الكشف الحركي الختبارات وظائف انزيم الكبد

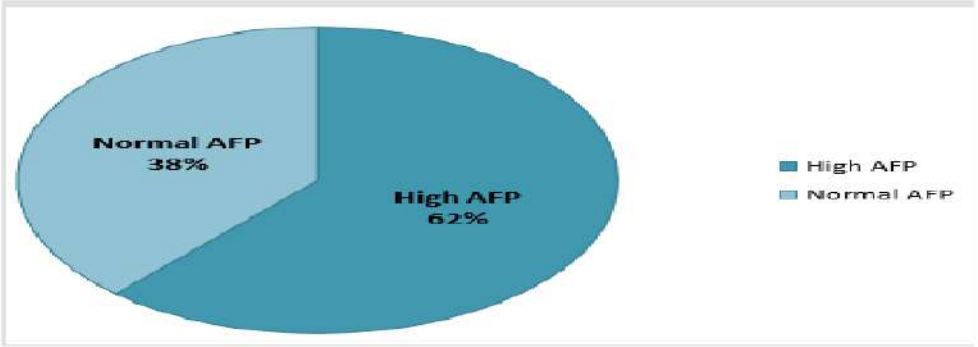


Figure 2: Represents the measurement level of high and normal AFP of patients among the studied group.

Assessment of the expression of LncRNA (NEAT1) in Human Papilloma Virus associated Head and Neck Cancer

تقييم تعبير LncRNA (NEAT1) في فيروس الورم الحليمي البشري المرتبط بسرطان الرأس والعنق

Mariam Mourad Dawood

160071

Host place: Global Medical Labs
Internal Supervisor: Prof. Ayman Diab
External Supervisor: Dr. Nashwa Nagy

ABSTRACT

Head and neck cancer (HNC) include the craniofacial bones, soft tissues, salivary glands. More than 90% of it are squamous cell carcinomas, occurs commonly in the oral cavity, oropharynx, larynx and hypopharynx. HNC represent the sixth most common cancer worldwide. Human papilloma virus considered one of the most risk factors in HNC cases especially the mucosal high-risk types HPV -16 and HPV-18. Nuclear Enriched Abundant Transcript 1 (NEAT1) is a novel nuclear long non-coding RNA which will be used in this study as a prognostic factor in HPV associated HNC. The present study was conducted on 50 subjects; forty of them were patients suffering from Head and Neck cancer lesions and ten healthy controls. The expression of the Lnc_NEAT1 was measured in all studied subjects using Real time PCR technology.

Keywords: Head and neck cancer, HPV, non-coding RNA

يشمل سرطان الرأس والعنق العظام القحفية والأنسجة الرخوة والغدد اللعابية. أكثر من 90 ٪ منها هي سرطان الخلايا الحرشفية ، يحدث عادة في التجويف الفموي ، البلعوم ، الحنجرة والبلعوم السفلي. يعتبر سرطان الرأس و العنق السرطان السادس الأكثر شيوعًا في جميع أنحاء العالم.فيروس الورم الحليمي البشري يعتبر واحداً من أهم عوامل الخطر في حالات سرطان الرأس و العنق وخاصة الأنواع المخاطية عالية المخاطر

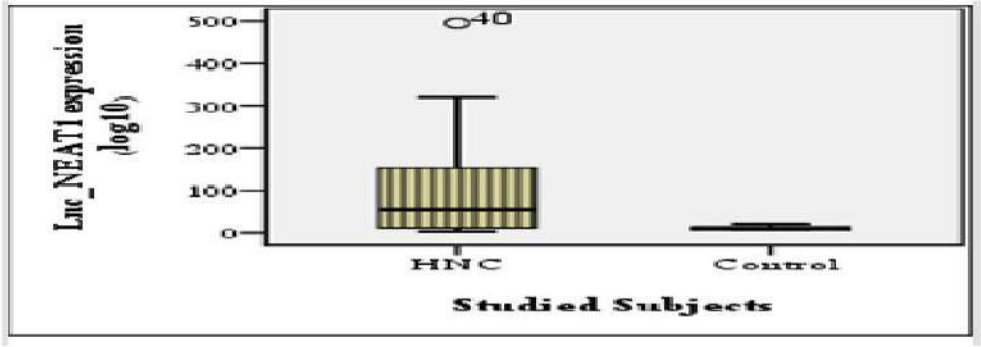


Figure 3: Frequencies of Lnc_NEAT1 gene expression in HNC patients and healthy controls.

The effect of insect succession and slaughtering process on the decomposition of rabbit's corpses in urbanized area.

تأثير تتابع الحشرات وعملية الذبح على تحلل جثث الأرانب في المناطق الحضرية ، بالإضافة إلى تأثير اختلاف الطقس على التحقيق القانوني

Mina Eshak Hanna

161029
Host place: Fayoum University
Internal Supervisor: Dr. Osama Saad
External Supervisor: Prof. Ehab Abuzeid

ABSTRACT

Forensic entomology is the study of insects and arthropods in criminal investigation. By studying the insect population and the developing larval stages, forensic scientists can estimate the postmortem index, any change in position of the corpse as well as the cause of death. This study is based on using rabbit's carcass as an animal model. During this study the rabbit carcasses were compared during different seasons of autumn and winter, in order to detect the effect of weather on the dead body. On the other hand, insect succession was detected during the different seasons of autumn and winter. In addition to another rabbit carcasses were
compared based on the cause of death.

Keywords: Insects, larvae, maggots, postmortem index, slaughtering, Insect

علم الحشرات الشرعي هو دراسة الحشرات والمفصليات في التحقيق الجنائي .من خلال دراسة أعداد الحشرات ومراحل تطور اليرقات ، يمكن لعلماء الطب الشرعي تقدير مؤشر ما بعد الوفاة وأي تغير في موضع الجثة وكذلك سبب الوفاة .تعتمد هذه الدراسة على استخدام ذبيحة الأرنب كنموذج حيواني .خلال هذه الدراسة ، تم مقارنة جثث الأرانب خلال مواسم مختلفة من الخريف والشتاء ، من أجل اكتشاف تأثير الطقس على الجثة .من ناحية أخرى ، تم اكتشاف خالفة الحشرات خلال مواسم مختلفة من الخريف والشتاء . بالإضافة إلى جثث أرنب أخرى تمت مقارنتها بناءً على سبب الوفاة

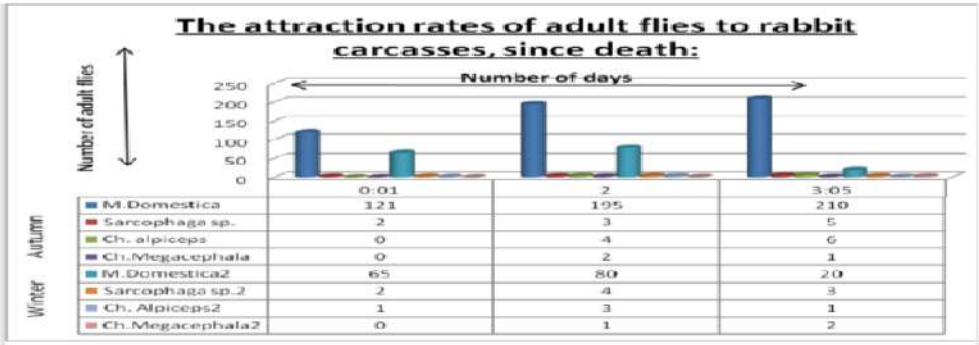


Figure 4: The attraction rates of adult flies to rabbit carcasses, since death.

Role of Short Tandem Repeats in Proving Family Relations

دور تكرار الترادف القصير STR في إثبات العلاقات الأسرية

Esraa Sayed Soliman

165195

Host place: Forensic Medical Authority
Internal Supervisor: Prof.AymanDiab
External Supervisor: Dr. Mona Hamza

ABSTRACT

Short pair rehashes (STRs) are across the board all through the human genome and are arich wellspring of profoundly polymorphic markers which can be distinguished by PCR. To pick up a superior appreciation for how the polymorphism at a specific locus impacts the individual character, the present study was embraced to investigate the utilization of 15 STR loci in criminological examination and paternity test-ing. Multiplex STR composing was utilized to consider the 15 STR loci notwithstanding a sexual orientation identification marker, amelogenin, by fine electrophoresis on 310 Genetic Analyzer. The results demonstrated that the STR composing is a solid and powerful apparatus for breaking down the measurable practice as well concerning paternity testing.

Keywords: mtDNA. DNA Profiling, RFLP, STR loci

قصيرة الزوج يمكن تمييزها عن طريق تفاعل البوليماراز التسلسلي. وللحصول علي تقدير اعلى لكيفية تأثير تعدد الأشكالفي موضع محدد على الشخصية الفردية، تم تبني الدراسة الحالية للتحقيق في استخدام 15 STR Loci بغض النظر عن علامة تحديد التوحة الجنسي وamelogenin عن طريق الكهربي غرامة على محلل وراثي 310

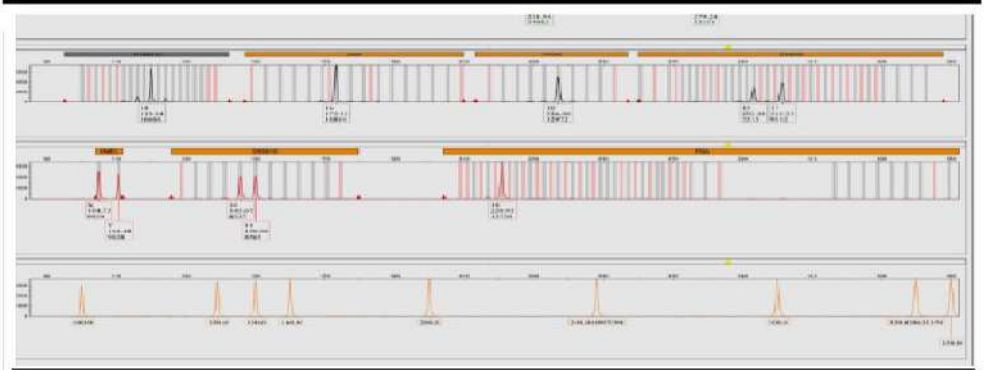


Figure 5: DNA profile obtained from blood sample of the father in the paternity case1 to obtain record of his genetic profile with a unique combination of 16 loci found in his DNA.

Effects of Curcumin on the Liver in a Rat Model of Diabetes Mellitus.

آثار الكركمين على الكبد في نموذج فئران لمرض السكري

Rana Maen

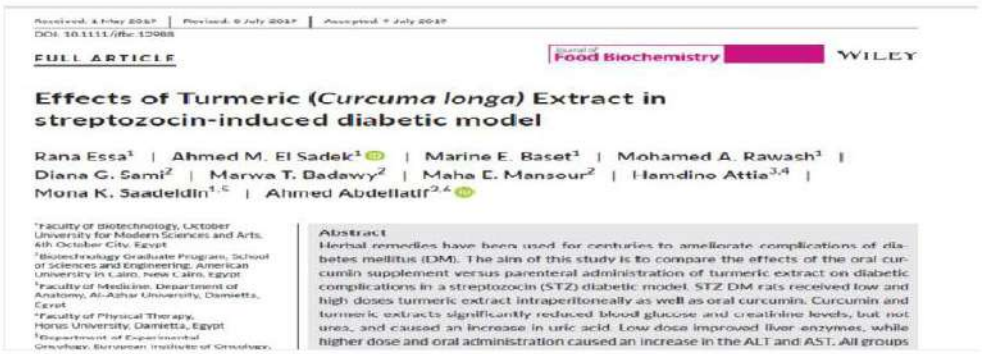
160033
Host place: American University in Cairo
Internal Supervisor: Dr. Amr Ageez
External Supervisor: Dr. Ahmed Abdel-Latif

ABSTRACT

Diabetes mellitus is a group of metabolic disorders occurring due to the decreased secretion or resistance to insulin. There are approximately 380 million diabetic patients worldwide; Middle East countries with an average and low income represent 80% of the cases which represents a significant economic burden. This study aims to explore the effects of natural herbal extract of curcumin which is commonly used as an additive to diabetic food. Diabetes mellitus was induced in Sprague Dawley male rats by using Streptozotocin (75 mg/kg), the dose was administrated
intraperitoneally over two days.

Keywords: Curcumin, pancreas, liver, ALT, and histopathology.

داء السكري عبارة عن مجموعة من الأمراض الأيضية التي تظهر نتيجة الإفراز المخفض للأنسولين أو مقاومته. عالمياً، هناك حوالي 380 مليون مريض بالسكري، بلاد الشرق الأوسط بمتوسط وإيراد منخفض تمثل 80 ٪ من الحالات مما يجعلها ممثل هام للعبء الاقتصادي. لعدة عصور، العلاجات العشبية أستخدمت لعلاج وتحسين عدة أمراض من بينها داء السكري. هذه الدراسة تهدف إلى اكتشاف آثار مستخلص الكركم العشبي الطبيعي المشيع استخدامه كمضاف لأغذية السكري.



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FULL ARTICLE

Journal of Food Biochemistry WILEY

Effects of Turmeric (*Curcuma longa*) Extract in streptozocin-induced diabetic model

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Abstract
Herbal remedies have been used for centuries to ameliorate complications of diabetes mellitus (DM). The aim of this study is to compare the effects of the oral curcumin supplement versus parenteral administration of turmeric extract on diabetic complications in a streptozocin (STZ) diabetic model. STZ DM rats received low and high doses turmeric extract intraperitoneally as well as oral curcumin. Curcumin and turmeric extracts significantly reduced blood glucose and creatinine levels, but not urea, and caused an increase in uric acid. Low dose improved liver enzymes, while higher dose and oral administration caused an increase in the ALT and AST. All groups

Design and synthesis of oxo -carbonitrile derivatives as anticancer agents targeting breast cancer

تصميم و تصنيع مشتقات الاوكسوكاربونيتريل كمضادات لسرطان الثدي

Kenzi Hossam Eldin

160835

Host place: National Research Center
Internal Supervisor: Dr. Hossam Taha
External Supervisor: Dr. Eman Yehia

ABSTRACT

Breast cancer is the malignant development from the breast tissue. Several treatments were made such as surgical removal of the tumor, hormonal therapy, immuno-therapy, cancer radiation therapy, anti-cancer agents and chemotherapeutic agents. Coumarins are naturally occurring compounds that have been proven to exhibit anticancer activity. This study aims to synthesize novel compounds, which are the chalcone and its oxo-carbonitrile cyclized form, utilizing coumarin as the main scaffold, to counteract breast cancer progression. The structure of the newly synthesized compounds was confirmed by the use of 1H NMR and 13C NMR spectroscopy.

Keywords: Breast cancer, coumarin, chalcone, oxo-carbonitrile, MCF7, MCF10a.

يعد مرض سرطان الثدي النمو الخبيث لخلايا نسيج الثدي في الانسان. يعتبر مرض سرطان الثدي من اكثر الامراض التي تسبب الوفاه في البلاد الغربية و المتقدمة ولذالك فقد قام العلماء و مراكز الابحاث بمحاولة مكافحة هذا المرض و اكتشاف طرق علاج متعدده منها: عن طريق التدخل الجراحي باستئصال الاورام, عن طريق العلاج الهرموني ، العلاج للجهاز المناعي , العلاج الاشعاعي يتم حاليا اجراء الابحاث لعلاج هذا المرض عن طريق المواد المضاده للسرطان و العلاج الكيميائي و ذلك باستخدام مركب الكومارين و هو مركب طبيعي يستخرج من بعض النباتات الطبيه

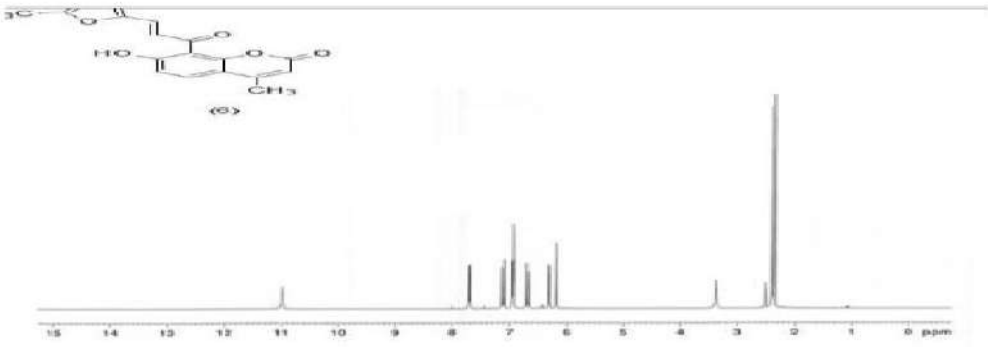

Figure 6: H NMR full spectrum of the prepared chalcone

Effect of Bee and Scorpion venoms on Prostate cancer *invitro* Study

تأثير النحل والسموم على سرطانات البروستاتا

Khadiga Abdelnasser

142193
Host place: Vacsera
Internal Supervisor: Dr. Reham Mohsen
External Supervisor: Dr. Abir Elfeky

ABSTRACT

Prostate cancer (PCa) is the commonest diagnosed visceral malignancy among males worldwide. Recent studies have shown that bee venom target the cancer cells without effect on the normal cells by activating PC3 with oxidative substances against prostate cancer. The induction of the apoptotic cell death through several cancer cell death mechanisms, includes activation of up regulation of c-myc, and c-met genes and down regulation of Casp-7, that are important to induce anticancer. Scorpion venom is a potential bio-source and therapeutic tool to design potent drugs against variety of diseases. It has been used as medicinal and therapeutic tool since ancient times in China. Scorpion venom consists of neurotoxins, salts, low molecular weight peptides and different enzymes with high molecular activities. These activities make them novel therapeutic agents.

Keywords: Prostate cancer, In-vitro, Venoms, Bee, Scorpion, Apoptosis.

سرطان البروستاتا الأكثر شيوعًا بين الذكور في جميع أنحاء العالم .أظهرت الدراسات الحديثة أن سم النحل يستهدف الخلايا السرطانية دون التأثير على الخلايا الطبيعية عن طريق تنشيط PC3 بالمواد المؤكسدة ضد سرطان البروستاتا .يتضمن تحريض موت الخاليا المبرمج من خلال عدة آليات لموت الخلايا السرطانية ، تنشيط تنظيم الجينات my-c ، و c-met ، والتنظيم لـ Casp-7 ، وهما أمران مهمان للحثعلى مضادات السرطان .السم العقرب هو أداة حيوية المصدر والمصدر العالجي لتصميم االدوية القوية ضد مجموعة متنوعة من االمراض .تم استخدامه كأداة طبية وعالجية منذ العصور القديمة في الصين.

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EFFECT OF BEE AND SCORPION VENOMS ON PROSTATE CANCER IN VITRO STUDY

By
ABIR A. ELFIKY[1], KHADEGA A. AMINE[2], HAZEM H.M. KHALIL[3] and ABDELRAHMAN ESSAMELDIN BAYOUMI[2]
Department of Anti-venom, VACSERA, Dokki, Giza* and Faculty of Biotechnology, October University for Modern Sciences and Arts (MSA), Egypt and Faculty of Medicine, Ain Shams University, Cairo 11566[3] (*Correspondence: elfikyabir@gmail.com)

Abstract

Prostate cancer (PCa) is the commonest diagnosed visceral malignancy among males worldwide. Recent studies have shown that bee venom target the cancer cells without effect on the normal cells by activating PC3 with oxidative substances against prostate cancer. The induction of the apoptotic cell death through several cancer cell death mechanisms, includes activation of up regulation of c-myc, and c-met genes and down regulation of Casp-7, that are important to induce anticancer. Scorpion venom is a potential bio-source and therapeutic tool to design potent

Antioxidant, antimicrobial and anticancer effect of African rose

تاثيرمضادات الأكسدة و مضاد الميكروبات ومضادات السرطان لفاكهة البرقوق الأفريقي

Teba Abdelrahman

165127
Host place: Cairo University Research Park -CURP
Internal Supervisor: Dr. Gehan Safwat
External Supervisor: Dr. Hossam Elbeltagy

ABSTRACT

Origin of African rose (plum) was reported for the first time in china 470 B.C. These was the first written document about plum. African rose has shown to have lots of medical uses and also have the ability to prevent diseases related to food, also in promoting of health. Moreover, African rose have been considered as a therapeutic treatment for pathologies that are associated with inflammation and oxidative stress. It was revealed that African rose phenolic compounds have so many of biological activities such as anti-inflammatory, anticancer, antioxidant and antimicrobial activities. The recent study is to analysis in vitro antimicrobial, anticancer and antioxidant activities of phenols, tannins, flavonoids and alkaloids that were extracted from African rose.

Keywords: Antibacterial, Anticancer activity, Antioxidant, DPPH, Flavonoid.

تم الابلاغ عن اصل الور الافريقي (البرقوق) لاول مرة في الصين 470 قبل الميلاد. كانت أول وثيقة مكتوبة حول البرقوق. وقد أظهرت الوردة الافريقية ان لديها الكثير من الاستخدامات الطبية. كذلك لديها القدرة على الوقاية من الأمراض المتعلقة بالغذاء، علاوة على ذلك تعتبر الوردة الأفريقية علاجًا علاجيًا للأمراض المرتبطة بالالتهاب والإجهاد التأكسدي. تم الكشف عن ان مركبات الفينول الوردية الإفريقية لديها الكثير من الأنشطة البيولوجية مثل الأنشطة المضادة للالتهابات و مضادات الاكسدة.

Original Article

Evaluation of the Phytochemical, Antioxidant, Antibacterial and Anticancer Activity of *Prunus domestica* Fruit

Hossam S. EL-BELTAGI[1,2]*, Abeer E. EL-ANSARY[1], Mai A. MOSTAFA[3], Teba A. KAMEL[3], Gehan SAFWAT[3]

Abstract

Plants have been used long ago through man history of life for their use in food and medicinal drugs. In modern life, natural products have been extracted and isolated from several kinds of plants for the development of new drugs. There are numerous interests in natural antioxidants extracted from medicinal plants, vegetables and fruits which might help to prevent oxidative damage. One of such plants is plum *Prunus domestica* L., family Rosaceae. Samples from 'African Rose', and 'Santa Rosa' plum cultivars were collected from local markets in Giza governorate, Egypt. The main phytochemicals of plums (fruit flesh and skin) were analyzed. Total polyphenols, flavonoids, tannins, anthocyanins, and reducing power were highest in 'African Rose' fruit. The ethanolic and ethyl acetate extracts of two plum cultivars were both high in the antioxidant effect with IC_{50} 15.925 and 18.416 µg/ml of ethanolic extract of 'African Rose', and 'Santa Rosa' respectively. The IC_{50} of 'African Rose' and 'Santa Rose' extract against Caco-2 was 6 and 8.5 µg/ml. GC-MS analysis was carried out, fourteen and twenty one compound were identified in 'Santa Rosa' and 'African Rose' respectively. The fruits had an antimicrobial action against gram positive and negative bacteria. There was anticancer activity against 3 cell lines: Liver cell line (HepG2), colorectal adenocarcinoma (Caco-2) cell line, and breast cell line (MCF-7).

Impact of natural bio-stimulants on increasing plant growth with anti-nematodic activity

المنشطات الطبيعية علي زيادة نمو النباتات و تأثيرها علي النيماتود

Ahmed Salah

162487

Host place: Central Lab Horticulture Research Center
Internal Supervisor: Dr.Gehan Safwat
External Supervisor: Dr. Abeer Dahab

ABSTRACT

Plant -parasitic nematodes are responsible worldwide about $100 billion crop yield loss and the most destructive ones are root knot nematodes. Plant parasitic nematodes could be free-living or endoparasites, which form their feeding sites (stylets) inside plants roots to redirect the nutrients toward the parasite. Chemical control methods are used to control these dangerous nematodes; although most of these chemicals are banned due to their high toxicity to the environment and human health. In absence of commercial vital treatment for RKNs, this study discusses natural biological ways to control the effects of RKNs and to stimulate the plants growth increasing crop yield. Specifically using plant extracts with anti nematocidial activities.

Keywords: Nematodes, endoparasites, and RKNs..

نيماتودا تعقد الجذور هي واحدة من أخطر ثلاث أنواع من النيماتودات المتطفلة على النبات من حيث ان الضرر الاقتصادي على محاصيل البساتين والحقول. وتنتشرفي جميع أرجاء العالم. تستخدم النيماتودا اجزاء من جسمها لاعادة توجيه الغذاء من اجزاء النبات الي جسدها عن طريق (ستيليتس) داخل جذور النباتات لإعادة توجيه المواد الغذائية الي النحو الطفيلي

Table 1: Percentages reduction of the total number of root knot nematode, juveniles infesting eggplant as influenced by plant extracts under field conditions

Treatments		Initial Population		One month after the first treatment		At harvest	
		Soil	Roots	Soil	Roots	Soil	Roots
Control		198	2245	95.45	100.53	231	2387
Pepper	0.5%	3.03	19.4	89.58	40.6	30.3	92.16
	1.0%	6.56	20	90.27	39.47	36.36	92.8
	1.5%	12.62	22.04	96.53	37.14	47.18	93.33
Garlic	0.5%	7.7	21.87	91.84	34.83	32.9	92.54
	1.0%	13.6	23.9	89.47	35.18	40.25	93.3
	1.5%	13.63	23.38	89.22	35.04	50.2	93.8
Onion	0.5%	8.08	17.3	96.7	41.91	29.4	91.9
	1.0%	10.10	19.33	97.19	41.63	32.46	92.3
	1.5%	11.6	20.66	95.42	41.49	36.8	93

GC-MS Analysis, Antioxidant, Antimicrobial and Anticancer Activities of Extracts from Ficus sycomorus Fruits and Leaves

الانشطة البيولوجية لاوراق الجميز

Reem Yousef Ahmed

152341
Host place: Cairo University Research Park
Internal Supervisor: Dr. Gehan Safwat
External Supervisor: Dr. Hossam Elbeltagy

ABSTRACT

There are many types of fruits that have been used as a natural source to treat different types of human diseases and most globally people use fruits as a safe source instead of drugs for medicinal purpose. One of this medicinal fruit is called *ficus sycomrous* that belongs to *Moraceae* family that native in Africa. The fruit and leaf contain of different groups of biological active compounds which are responsible for biological activities and may have a role in the protection against incurabl diseases and sicknesses. The goal of this study is to compare between two extracts (Ethanolic and Ethyl acetate) of ficussy comorusleaves.

Keywords: Phenols; Flavonoid Fatty acid; Steroid

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هناك العديد من انواع الفواكه التى يتم استخدامها كدواء طبيعى لعلاج امراض مختلفة التى تصيب الانسان. واحده من هذه الفواكهة الطبيعية تسمى الجميز التى توجد وتعيش فى افريقيا. الفاكهه واوراقها تحتوى على مجموعات مختلفة من المركبات المسئولة عن الانشطة البيولوجية ويمكن ان يكون لها دور فى علاج الامراض المستعصية. الهدف من هذه الدراسة هو المقارنة بين نوعين من المستخلصات,الايثنول والاستيل استيت من ورق الجميز لنعرف من اكثر تركيز و ك مضاد للسموم ومضاد للميكروبات على انواع مختلفة من البكتيريا والفطريات و كمضاد للسرطان

GC-MS Analysis, Antioxidant, Antimicrobial and Anticancer Activities of Extracts from *Ficus sycomorus* Fruits and Leaves

Hossam S. EL-BELTAGI[1,2*], Heba I. MOHAMED[3], Abdelrahman S. ABDELAZEEM[3], Reem YOUSSEF[4], Gehan SAFWAT[4]

Abstract

Higher plants have been utilized worldwide as characteristic drug a long time to cure human diseases. About 80% of individuals globally use plants as safe sources of medication to cure human disease through completely different medicine system. One of the available indigenous medicinal plants, *Ficus sycomorus* belongs to the Moraceae family. The plant contains totally different exams of biologically active compounds that square measure chargeable for the biological activity. Ethanolic and ethyl acetate extracts of leaves of *Ficus sycomorus* contain higher concentrations of total phenols, flavonoids, tannins, alkaloids and steroids than the fruit extracts. Ethanolic extract in both fruits and leaves gave higher concentrations of phytochemical compounds than the ethyl acetate extracts. The ethanolic fruit and leaves extract have antibacterial and antimicrobial activity against gram positive, negative bacteria and fungus. Also, the percentage of three cell line (HepG2), Colorectal adenocarcinoma (Caco-2) and breast cell line (MCF-7) viability was decreased with increasing the concentrations of the ethanolic extract of fruits and leaves of *Ficus sycomorus*. The high concentrations of ethanolic extract of fruits caused high reduction in the viability of cancer cells, especially in Colorectal adenocarcinoma (Caco-2) cell line. In addition, phytochemical compound screened by GC-MS method. In GC-MS analysis, 12 bioactive phytochemical compounds were identified in fruits and 20 bioactive compounds were detected in leaves extract. These totally different active phytochemicals are found to possess a good vary of activities, which can facilitate within the protection against incurable diseases.

Bioaccumulation of toxic metal pollutants by water velvet and effects on pigment content

التراكم الأحيائي لملوثات المعادن السامة عن طريق المخمل المائي وتأثيره على محتوى الصباغ

Natalie Tamer Abdelhamid

162251
Host place: Petroleum Research Institute
Internal Supervisor: Prof. Ayman Diab
External Supervisor: Prof. Ahmed Kamel
Prof. Nermin Hefny

ABSTRACT

The waste water discharge is a major contributor to the environmental pollution. In Egypt most of the waste water is discharged partially treated. This study aims at evaluating the use of Azolla pinnata R.Br. (water velvet) in phytoremediation of the five toxic metals Pb, Fe, Zn, Ni and Cu from waste water and the effects on the fern pigment content. Populations of the fern were raised in freshwater, waste water and mixtures of waste water-freshwaters. The toxic metals bioaccumulation factor (BF) was higher in the mixtures than in the absolute waste water. The BF was higher than unity and up to 19.6 for Ni and around 14 for Zn.

Keywords: Bioaccumulation, sewage water, removal efficiency.

يعتبر تصريف مياه الصرف الصحي مساهم رئيسي في التلوّث البيئي. يتم تصريف معظم مياه الصرف عن طريق المعالجة الجزئيةز تهدف هذه الرسالة الي تقييم استخدام الماء المخملي في المعالجة النباتية ل خمس معادن سامة من مياه الصرف الصحي و تاثيرات استخدامه علي محتوي الصبغة السرخسية. تم جمع عينات من المياه العذبة, مياه الصرف الصخي و خليط بينهما. كان عامل التراكم الاحيائي للمعادن السمية اعلي في الخليط من مياه الصرف الصحي فقط.

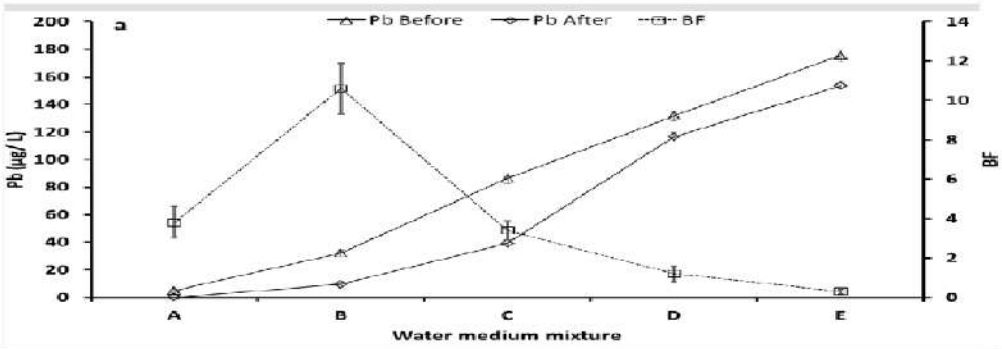

Figure 7: Graph shows the lead content in the water medium mixture before and after treatment and shows the BF

Hydrogel Nanocomposite for Antibacterial Applications

للبكتيريا المضادة للتطبيقات نانوكومبوسيت هيدروجيل

Sahar Hossam

162973

Host place: Egyptian Petroleum Research Institute
Internal Supervisor: Prof. Ayman Diab
External Supervisor: Dr. Reem Kamal

ABSTRACT

The development of hydrogels in the past few years in order to obtain an enhanced material with improved properties have led to the emergence of nanocomposite hydrogels that have unique properties which allows it to be used in various different applications such as drug delivery, wound dressing and especially antimicrobial applications. Nanocomposite hydrogel are versatile materials that can be used as an alternative to the conventional antimicrobial agents. Thus, this study was conducted in order to fabricate a novel super absorbent terpolymer nanocomposite hydrogel through using the free radical co -polymerization method based on the usage of 2-Acrylamido-2 -methylpropane sulfonic acid (AMPS), acrylamide, acrylonitrile and acrylic acid monomers
and iron oxide (Fe_2O_3) magnetic nanoparticle.

Keywords: Nanocomposite hydrogels, iron oxide nanocomposite, antibacterial.

قد أدى تطوير الهيدروجيل في السنوات القليلة الماضية الى الحصول على مادة محسنة مع خصائص محسنة إلى ظهور هيدروجيل صغيرة الحجم التي لها خصائص فريدة تسمح باستخدامها في مختلف المجالات والتطبيقات المختلفة مثل توصيل الدواء ، وخاصة التطبيقات المضادة للميكروبات. يتكون مركب الهيدروجيل الصغيرالحجم من مواد متعددة الاستخدامات يمكن استخدامها كبديل للعوامل المضادة للميكروبات .

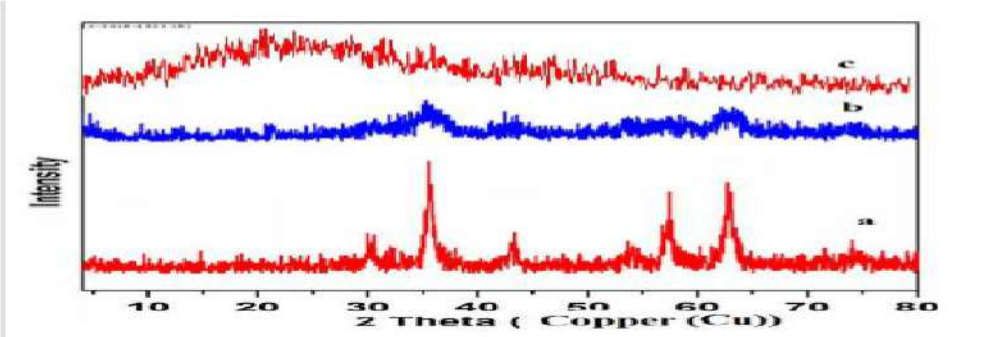

Figure 8: Shows the degree of swelling of the magnetic nanocomposite hydrogel samples (X1, X2, X3) after 110 minutes.

Biological studies activities of cross-linked polymers

دراسات الأنشطة البيولوجية للبوليمرات المتقاطعة

Salma Hani Abdelhamed

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External Supervisor: Dr. Reem Kamal

ABSTRACT

The synthetic cross -linked terpolymer usage in life have abundantly increased through the recent years, due to their unique characteristics including mechanical strength, longer service life, the ability to absorb large amounts of water and being biocompatible. Attributing to the wide properties and usages of the cross-linked polymers, However, there is a pressing demand to synthesize polymers having antibacterial and antifungal properties. The aim of this study was to synthesize novel cross-linked hydrophilic terpolymer samples through the free radical polymerization technique, which was based on the monomers acrylamide, acrylonitrile and acrylic acid, AMPS, benzoyl peroxide

as initiator and ethylene glycol dimethacrylate as a cross-linker.

Keywords: Polymer, gel terpolymer, cross-linked polymer, anti-bacterial.

قد زادت صناعة التيربوليمر الصناعي خلال السنوات الأخيرة ، نظرا لخصائصها الفريدة بما في ذلك القوة الميكانيكية، وطول خدمة الحياة، والقدرة على امتصاص كميات كبيرة من المياه
دون تحلل وكونه حيويا تم دراستها كمرشح في مختلف المجالات والتطبيقات من خلال تغيير البنية الكيميائية والتطبيقات من خلال تغيير البنية الكيميائية ، طرق التركيز أو التحضير، هناك طلب ملح لتجميع البوليمرات التي لها خصائص مضادة للبكتيريا ومضادة للفطريات ، terpolymerوكان الهدف من هذه الدراسة لتجميع عينات ،والتي كانت تقوم على أحادية الأكريلاميد، من خلال تقنية البلمرة الراديكالية الحرة و الأكريلونيتريل وحمض الاكريل

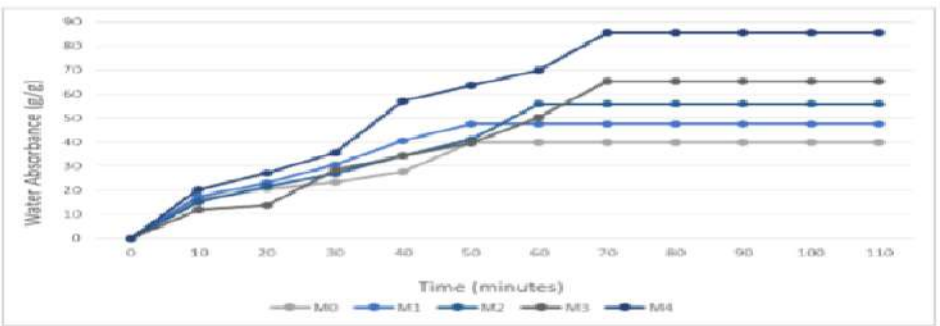
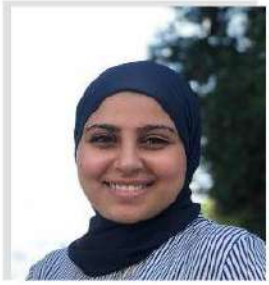


Figure 9: Demonstrates the swelling degree of the cross-linked terpolymer samples (M0, M1, M2, M3 and M4) over a period of 110 minutes.

Detection of benzo[a]pyrene in olive oil in Egypt

الكشف عن البن (أ) بيرين ف زيت الزيتون ف مصر



Rawan Mahmoud Elsherbini

151173

Host place: Researcher at Central laboratory of Residue Analysis of Pesticides and Heavy metals in food-QCAP

Internal Supervisor: Dr.Amr Ageez

External Supervisor: Dr.Ahmed Abdel-Latif

ABSTRACT

Polycyclic aromatic hydrocarbon (PAHs) are formed and released during incomplete combustion or pyrolysis burning of organic matter such as waste or food, during industrial processes, fuel burning and other human activities. PAHs are also formed in natural processes, such as carbonization. This study aimed to detection of benzo[a]pyrene (BaP) in olive oil in Egypt. A number of PAHs have shown carcinogenic effects in experimental animals and it has been concluded that BaP is carcinogenic to humans. The analysis was carried using gel permeation chromatography (GPC) followed by injection on high performance liquid chromatography (HPLC). The result showed that only one sample of olive oil from 90 samples contain Bap at 1 .2 µg /Kg which were collected from

Keywords: Olive Oil, Benzo(a)pyrene, Polycyclic aromatic hydrocarbons.

يتم تشكيل الهيدروكربون العطري متعدد الحلقات الانحلال الحراري للمواد العضوية مثل النفايات أو الأغذية ، أثناء العمليات الصناعية ، حرق الوقود و الانشطة البشرية الاخري.

آثار مسرطنة في تهدف الدراسة إلى اكتشاف البنز(البايرين) في زيت الزيتون في مصر.

أظهرت الدراسة عدد

مسرطنة للإنسان. وقد تم التحليل باستخدام الكروماتوجراف BaP حيوانات التجارب ، وقد استنتج أن وأظهرت النتائج أن عينة واحدة .(HPLC) يليه الحقن على اللوني السائل عالي الأداء (GPC) الجلدي عند 1.2 ميكروغرام / كغ تم جمعها من أسواق Bap فقط من زيت الزيتون من 90 عينة تحتوي على مختلفة في جميع أنحاء مصر..

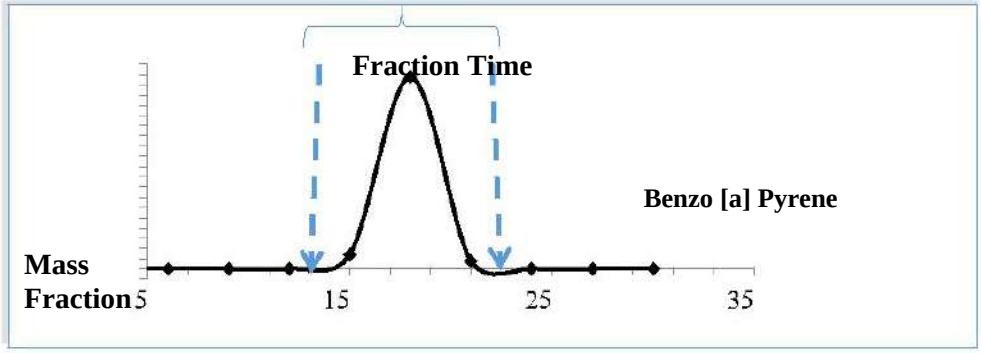


Figure 10: GPC separation profile and the fraction time of BaP.

Reliable Determination of Sudan Dyes in Hot Sauce

تقدير موثوق لأصباغ السودان بالصلصة الحارة

Salma Mohamed Fouad Ehelaly

160515

Host place: Central laboratory of Residue Analysis of Pesticides and Heavy metals in food-QCAP

Internal Supervisor: Dr. Mohamed Maged

External Supervisor: Dr. Ahmed Salem

ABSTRACT

Sudan dyes are synthetic chemical, red dyes that are used for artificially colouring hydrocarbon solvents, waxes, oils, petrol, plastics and floor polishes. The use of these dyes in food at any level is not allowed due to their carcinogenic effect. Sudan dyes are not permitted in the regulations of many countries such as U.A.E, EU, Canada, Australia, China and Hong Kong. In spite of
this fact, Sudan dyes have been found in several food products. The determination of Sudan dyes has been assessed in a total of 38 hot sauce samples that were purchased randomly from different local markets in both Cairo and Giza governments. (GPC) and (HPLC) were used. The method validation performance was tested on hot chilli samples and the GPC clean-up was found to be at 12 minutes in addition to the limit of quantification (LOQ) at expected lowest quantification level of 1 mg/kg for the 38 samples
of hot sauce.

Keywords*: Sudan, aromatic compounds, hot chili*

صباغ السودان عبارة عن مادة كيميائية اصطناعية وأصباغ قطبية قابلة للذوبان في الزيوت و تستخدم لتلوين المذيبات الهيدروكربونية. لا يُسمح باستخدام هذه الأصباغ في الطعام على أي مستوى بسبب مخاوفها الصحية عينة من الصلصة الحارة وجمعها بشكل عشوائي من مختلف ٣٨ وتأثيرها المسببة للسرطان. لذلك ، تم شراء الأسواق المحلية و تم اختبار أداء التحقق من صحة الطريقة على عينات الفلفل الحار.

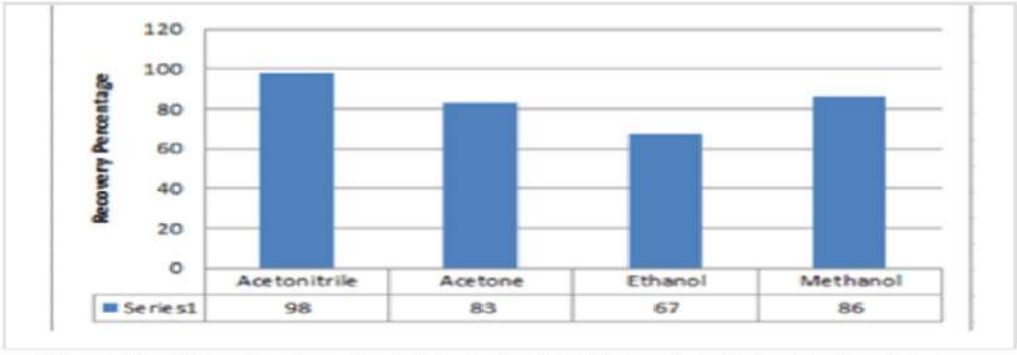


Figure 11: The recovery percentage of extraction solvents for Sudan dyes.

Detection of Aflatoxin B1, B2, G1 and G2 in Tahini

الكشف عن الافلاتوكسين B1, B2, G1 and G2 فى الطحينة

Sandra Mounir Armeya

160941

Host place: Central laboratory of Residue Analysis of Pesticides and Heavy metals in food-QCAP

Internal Supervisor: Dr.Samer ElSayed

External Supervisor: Dr.Ahmed Salem

ABSTRACT

Sesame seed is one of the main nutrients used in the food industries. There are many toxins that affect the sesame seeds the most known was the aflatoxin which is one of mycotoxins that appeared on the food products because of fungus as: Aspergillus. The aim of this study is to detect aflatoxins B, B2, G1 and G2 in 42 samples of tahini by using HPLC. The method used for aflatoxin extraction was developed by AOAC standard test methods. The method is linear from the limit of quantification 0.5 g/kg up to 40 g/kg. This method is intended for aflatoxin analyses in tahini simply with minimum toxin lose, excellent recovery, and accurate results with the limit of detection 0.1 g/kg. The results of 42 samples showed that the average of AFB1 contamination in the brand samples was 0.10 µg/kg. However, in the local samples the average of AFB1 contamination was 7.79 µg/kg while the average of AFB2 was 1.43 µg/kg.

Keywords: *Tahini, sesame, aflatoxin, AOAC, HPLC.*

هناك العديد من السموم التي تؤثر على بذور السمسم ولكن الأكثر شهرة هو الأفلاتوكسين و هو واحد من السموم الفطرية التي تظهر على المنتجات الغذائية بسبب الفطريات .الهدف من هذه الدراسة هو الكشف عن الأفلاتوكسينات B و G 2 و G 1 و B في 24 عينة من الطحينة باستخدام جهاز الفصل الكروماتوجرافى 2 عالى الكفاءة. تهدف هذه الطريقة إلى تحاليل الأفلاتوكسين في الطحينة ببساطة مع فقدان الحد الأدنى من السموم ، والاسترجاع الممتاز ، والنتائج الدقيقة مع الحد من الكشف 0.1 ميكروغرام /ك غ.

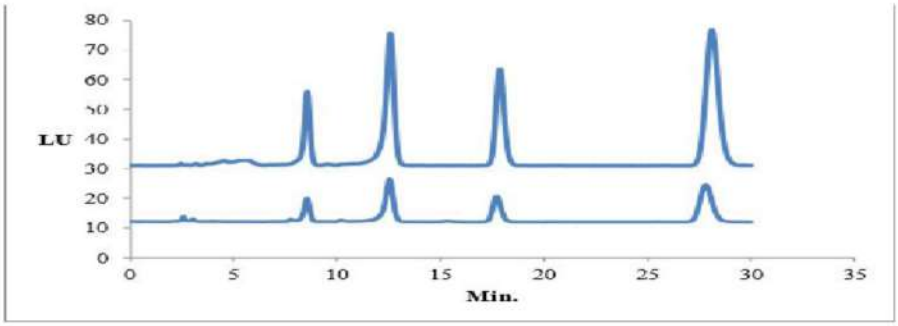


Figure 12: HPLC Separation of 50µg/kg standard (A) and 2.0 µg/kg sample (B)

Evaluation of miR -155 as a therapeutic target in Multiple Myeloma Cell Lines

تقييم (miR-155) كهدف علاجي فعال للأورام الخبيثة المرتبطة في خطوط خاليا المايلوما المتعددة

Passant Emad Salah El-Din

160811

Host place: Global Medical Labs
Internal Supervisor: Prof. Ayman Diab
External Supervisor: Dr.Nashwa El Khazargy

ABSTRACT

Multiple myeloma (MM) is a malignant plasma cell disorder that accounts for approximately 10% of all hematologic cancers. This review focuses on the molecular interactions of miR-155, and its potential as an effective therapeutic target for the associated malignancies in Multiple Myeloma cell lines. MM cell lines transfected with miR155, then the efficacy of knockdown was validated using MTT assay and the gene expression was measured in both treated and untreated cells was measured using Cyber Green based Real Time PCR analysis. statistical analysis and results showed that knockdown of miR155 resulted in decrease of cell proliferation and increase of cytotoxic effect in MM cells lines.

Keywords: Knockdown, miR155, Multiple Myeloma, transfection, cell lines.

المايلوما المتعددة هو اضطراب خلايا البلازما الخبيثة التي تمثل ما يقرب من 10 ٪ من جميع سرطانات الدم تركز هذه المراجعة على التفاعلات الجزيئية لـ miR- 155وآليات قمع الورم، وإمكاناتها كهدف علاجي ، فعال للأورام الخبيثة المرتبطة في خطوط خلايا المليمولا المتعددة. وأظهرت الخلايا التي تم طرقها انخفاضًا ملحوظًا في التعبير miR 155 الخلاصة: يمكن أن نستنتج أن انخفاض من miR 155 يمكن استخدامها كهدف علاجي قيِّم لعلاج مرض المايلوما المتعددة.

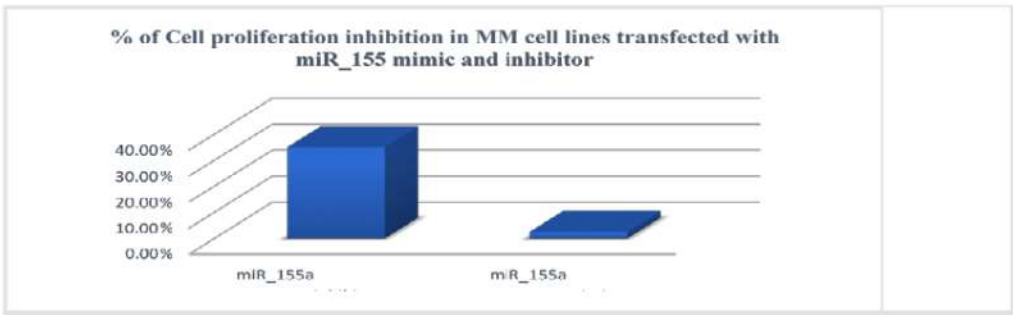


Figure 13: MTT assay of HNSCC transfected cells with miR_155a.

Molecular Identification of Aminoglycoside-Modifying Enzymes among *E. Coli* Clinical Isolates from Egyptian Patients

التعرف الجزيئي على الإنزيمات المعدلة للأمينوغليكوزيد بين العزلات السريرية للاشريكية القولونية من عينة المرضى المصريين

Hadeer Abdelsamea Eid

163317

Host place: MSA University
Internal Supervisor: Dr. Hossam Taha
External Supervisor: Dr. Hossam Taha

ABSTRACT

Urinary tract infections (UTIs) are some of the most common bacterial infections affecting 150 million people each year worldwide. Hundred and fifty UTI women were enrolled in the present study. The isolated bacteria were identified and *E. coli* isolates were under went aminoglycosides antibiotics sensitivity Assay. The aminoglycosides resistant *E. coli* isolates were tested using multiplex PCR. According to the current study the following genes aac(3)-Ia, aac(3)-IIa, aac(3)-Ih, aph(3)-VI, ant(2)-Ia, Rmt,
aph(3)-Ia and aac(6)-Ib approved to be genes among resistant E. coli clinical isolates.

Keywords: Urinary tract infection, Antibiotics, E. coli, aminoglycoside, Antibiotics.

تعد التهابات المسالك البولية من أكثر أنواع الالتهابات البكتيرية شيوعا ، والتي تصيب 150 مليون شخص سنويا في جميع أنحاء العالم. تم التعرف على البكتيريا المعزولة و خضعت تم اختبار العزلات aminoglycosides. الاشريكية القولونية المعزولات للمضادات الحيوية المتعدد للكشف عن الجينات المقاومة للمضاد الحيوي. اثبتت هذه الدراسة وجود علاقة PCR باستخدام اختبار بين جينات معينة موجودة على الإيكولاي والمقاومة ضد المضادات الحيوية. فى نهاية هذة الدراسة تم اثبات ان "aac(3)-I, aac(3)-IIa, and aph(.التى تسبب المقاومة للمضادات الحيوية وهى

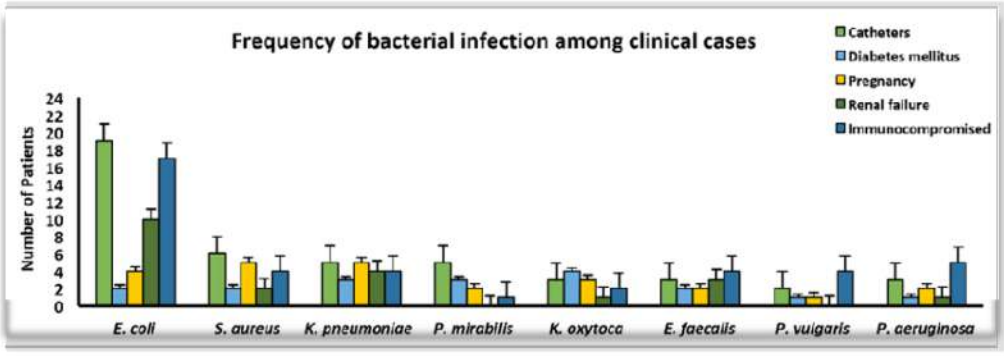


Figure 14: Frequency of bacterial infection among different clinical cases.

Assessment of CD25 expression as a stem cell marker for pediatric acute myeloid leukemia

تقييم تعبير CD 25 كعلامة للخلايا الجذعية لسرطان الدم النخاعي الحاد لدى الأطفال

Ahmed Mohamed El Sadek

162257

Host place: National Cancer Institute **Internal**
Supervisor: Dr. Mohamed Maged **External**
Supervisor: Dr. Eman Kandeel

ABSTRACT

cD25 is a prognostic marker normally expressed on activated T-cells and its expression is associated with poor prognosis. The aim of this study is to assess and investigate the expression levels of CD25 marker presented on CD34+ blasts of pediatric patients diagnosed with AML. 7 samples were collected from AML patients, followed by the analysis using flowcytometry and diagnosed based on immunophenotyping to detect the presence or absence of the marker. The results have shown that CD25 has been expressed in 28.5% of the cases diagnosed with AML. In a conclusion, CD25+ status provides adverse prognostic relevance in AML.

Keywords: CD25, AML, Immunophenotyping.

تعتبر علامة النذير CD 25 التى يتم ظهورها عادة على الخلايا التائية (T-cells) ة بانتشار وتمايز هذه الخلايا، ويرتبط ظهور هذه العلامة بسوء التشخيص. إذنً فالهدف من هذه الدراسة هو التقييم والتحقق من مستويات التعبير الجينى و ظهور العلامة CD 25على الخلايا السرطانية النخاعية، مصطحبة بعلامة + CD 34 على سطح كل خلية لمرضى الأطفال الذين تم تشخيصهم بمرض سرطان الدم النخاعي الحاد. وقد أظهرت النتائج أن CD 25 تم ظهورها على سطح الخلايا السرطانية في 28.5 ٪ من الحالات التي تم تشخيصها بالمرض، وكان تعبيرها مرتبطًا بشكل إيجابي قيمة $P < 0.05$.

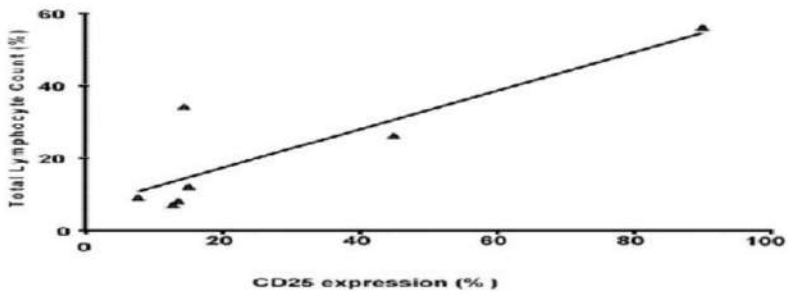


Figure 15: Graphical representation of the positive correlation between the percentages of CD25 expression and the total lymphocyte count.

In vitro and in vivo study of taberna Montaña divaricata and Nerium Oleander using C26 Cell lines.

دراسة في المختبر وفي الجسم الحي لبكتريا Ternaemontana divaricate و Nerium Oleander باستخدام خطوط C26 Cell

Dina Yousri Mansour Moragea

160505

Host place: National Research Center
Internal Supervisor: Dr.Ashraf Bakkar
External Supervisor: Dr.Salwa Hallouty

ABSTRACT

Colorectal cancer (CRC) is the third most common cancer worldwide in men and women. The aim of the study was evaluation of Tabernaemontana divaricate and nerium oleander extracts on C26 murine cell lines in vitro for the discovery of new drug for cancer by induction of C26 to balb/c in vivo. MTT assay was used to measure viability of the cells. The in vitro results in 2D culture gives a promising percentage in IC50 with Tabernamontana divaricata by 33%, while in Nerium Oleander it was 65% which indicates that tabernamontana divaricata has a higher effective potency than Nerium oleander. While in 3D model, tabnernamontana divaraciata shows a high penetration power on the cells than Nerium Oleander.

Keywords: Balb/c, Tabernaemontana divaricata, C26, Nerium Oleander.

يعد سرطان القولون ثالث أكثر أنواع السرطان شيوعًا بين الرجال والنساء على مستوى العالم. كان الهدف من هذه الدراسةهوتقييم مستخلصات Tabernaemontana divaricat و Nerium oleander على خلايا الفئران C 26 داخل المختبر من أجل اكتشاف عقار جديد لعلاج السرطان عن طريق تحريض C إلى IC50مع في الجسم الحي. النتائج في المختبر في ثقافة ثنائيةالأبعاد تعطي نسبة واعدة في balb / c كانت 33 ٪ ، بينما فيTabernamontana divaricataبنسبة Nerium Oleander ، مما يدل 65 ٪ على أن tabernicontana divaricata تتمتع بفعالية أعلى فعالية من Nerium oleander.

Table 2: Shows the survival rate of mice after treatment

Plant extracts	Concentration of injected extracts	Number of dead mice	Number of survived mice	Time of death
Tabernaemontana divaricate	250 µl per mouse	All	None	24 hours
Nerium Oleander	250 µl per mouse	All	None	24 hours

Using HPLC for Identification and Quantification of Daclatasvir and Ribavirin in Anti-Viral Drugs Javidacla and Virinrest

استخدام HPLC لتحديد و تقدير داكلاتاسفير و ريبافيرين في الأدوية المضادة للفيروسات Javidacla و Virinrest

Mohamed Tarek Gamal

165179
Host place: MultiCare Egypt for Pharmaceutical Industr
Internal Supervisor: Dr.Amr Ageez
External Supervisor: Dr.Amr Ageez

ABSTRACT

Hepatitis C virus (HCV), is a small enveloped single-stranded RNA virus that causes acute and chronic cases. Javidacla and Virinrest antiviral drugs have shown high potentiality in curing HCV. The current study aims to establish a method to validate and quantitate, Javidacla and Virinrest antiviral drug active ingredients inside coated tablet for curing HCV. The validation method is based upon using HPLC for the quantitation and identification of the drugs to confirm their identity and provide quantitative results to monitor the progress of the therapy for a disease. In conclusion, a verified method based upon HLPC was established and verified to validate and quantitate daclatasvir and ribavirin in Javidacla and Virinrest.

Keywords: Antiviral Drug, Daclatasvir, Hepatitis C Virus, HPLC, Javidacla,

فيروس الالتهاب الكبدي الوبائي سي ينتمي الي عائلة الفيروسات المصفرة. يسبب فيروس التهاب الكبد الوبائي سي نتوء حاد ومزمن ينتقل عن طريق الدم . أظهرت الأدوية المضادة للفيروسات جافيد لاكو فيرنرست إمكانية عالية في علاج فيروس التهاب الكبد الوبائي. تهدف الدراسة الحالية إلى إنشاء طريقة فى للتحقق من صحة المكونات الفعالة للعقار المضاد للفيروسات جافيدكلا و فيرنرست داخل الكساء المطلي لعلاج فيروس التهاب الكبد الوبائي

Table 3: HLPC used to test the average recovery Javidacla tablet in different concentrations

RECOVERY	Assay	CONCENTRATION	Con.
%	**(µg/ml)**	**(µg/ml)**	No.
100.3%	60.2	60	**Con. 1**
100.1%	80.08	80	**Con. 2**
99.6%	99.6	100	**Con. 3**
	100 %	Average	

Evaluation of PPD and Ascorbic Acid for Snake venom and -amino oxidase anticancer potential

تقييمPPD وحمض الأسكوربيك كمحسن لسم الثعابين و إمكانات مضاد للأكسيداز الأمين

Alaa Eldin Tarek

160123

Host place: Faculty of Medicine-Al Azhar Universit
Internal Supervisor: Dr.Ahmed Aref
External Supervisor: Dr.Aly Fahmy

ABSTRACT

Prostate cancer is developing in male prostate over 50 years of age. The aim of the project is using Ascorbic Acid and purified protein derivative (PPD) as an enhancer for the anti -cancer potential of Snake Venom and LAAO for the treatment of prostate cancer. it can be concluded that Both SV an LAAO in the management of PC3 cancer cells, PPD was effective in significantly when used with LAAAO and SV (antagonistic potential) compared with the IC50 of free LAAO and ascorbic acid as well. It can be recommended that more investigation of the synergetic and antagonistic activity of both AA and PPD using variable concentrations and cell treatment regimen.

Keywords: PPD, prostate cancer, venom, ascorbic acid.

يتكون سرطان البروستاتا في غدة البروستاتا الذكرية عند الذكور في سن يزيد عن 50 عامًا. الهدف من المشروع هو استخدام حمض الاسكوربيك و مشتق البروتين النقي كتعزيز و تطوير من تفاعل سم الافعى و حمض الاكسديز لعلاج مرض سرطان البروستاتا فقد تم الإبلاغ عن أن الخلية تم اعتقالها بشكل رئيسي خلال مرحلة ما قبل G 1 وتم اكتشاف تغيُّر متغير في جميع أنحاء G 2 / المرحلة اعتمادًا على نظام العلاج كان PPD فعالًا بشكل كبير عند استخدامه مع LAAAO و SV مقارنة مع IC 50 ل LAAO المجاني وحمض الأسكوربيك أيضا.

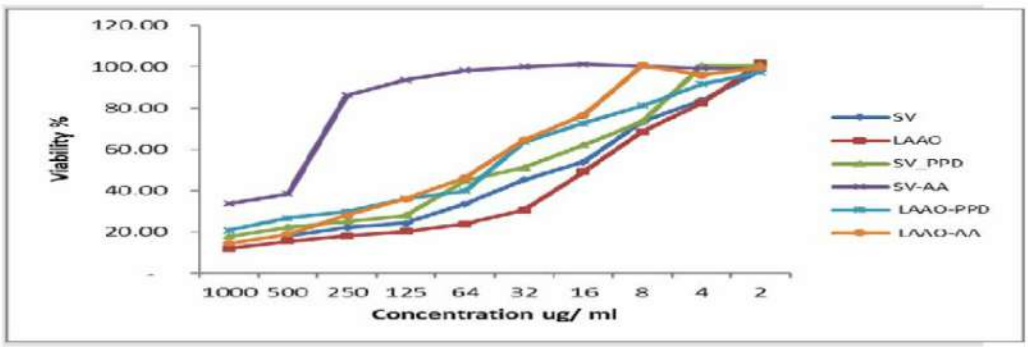


Figure 16: Evaluation of snake venom cell viability post treatment with PPD and ascorbic acid.

Post-harvest chilling injury of citrus fruit

الإصابة بالبرودة بعد حصاد ثمار الحمضيات

Rasha Mahmoud Kandeel

162079

Host place: Agricultural Research Center
Internal Supervisor: Dr. Gehan Safwat
External Supervisor: Dr. Gehan Ahmed

ABSTRACT

Around 162,000 ha of oranges were planted within 2018/2019 in Egypt. Prolonged storage at low, non-freezing temperatures to maintain quality is the main cause of post-harvest chilling injury of citrus fruits. The application of salicylic acid and hot water dips significantly reduces injury caused by chilling. This study aims to test the efficiency of both methods on 'Valencia' orange fruits during cold storage at 5°C. Both methods showed similar effects of reducing the effect of polyphenol oxidase, pectinase and the total soluble pectin.

Keywords: Citrus. Chilling injury, Post-harvest treatment, Hot water dip.

خلالو لكن تخزين الفاكهة 2018/2019 فيما يقارب ال 162,000 هكتار من البرتقال تم زرعه في هذه البرودة هو السبب الرئيسي لفساد محصول البرتقال، ووصول الثمرة للنضوج بشكل غير و تغطيس الفاكهة Salicylic طبيعي وفسادها من الأعراض التي تظهر على الفاكهة. استخدام حمض ال في الماء الحار يقلل فساد المحصول بسبب البرودة بصورة كبيرة. في هذه الدراسة، سيتم اختبار حمض ال و تغطيس الفاكهة في الماء الحار لمتابعة كفاءتهم في تقليل الفساد على برتقال "الفلانسيا" خلالSalicylic وال ، polyphenol oxidaseكانت النتائج متقاربة في تقليل تأثير ال °C. الحفظ في درجة 50 pectinase، وال.total soluble pectin

Table 4: Effect of salicylic acid (SA) on total soluble pectin.

Effect of salicylic acid (SA) on total soluble pectin of 'Valencia' orange fruits during cold storage at 5°C				
Weeks stored / Treatment	0	3	6	9
Distilled water	0.229352	0.263841	0.385769	0.413151
Salicylic acid 1 mM	0.216457	0.255258	0.332394	0.358483
Salicylic acid 2 mM	0.21538	0.238032	0.317178	0.333079
Salicylic acid 3 mM	0.20815	0.2349	0.297282	0.303911

SSR markers associated with salt stress tolerance among tomato genotypes

علامات الSSR مرتبطة بتحمل الملوحه بين أصناف الطماطم

Reham Alaa

163365

Host place: Cairo University Research Park

Internal Supervisor: Dr. Amgad Rady

External Supervisor: Prof. Reda Moghieb

ABSTRACT

Most tomato cultivars are ranged from being sensitive to moderate salt tolerant. In the present investigation different salt stress concentration was applied to seven tomato genotypes. Tomato plants were subjected to different NaCl concentrations. The genetic diversity among the seven tomato genotypes was detected by six markers of Randomly Amplified Polymorphic DNA (RAPD) and five markers of Simple Sequence Repeat (SSR) analyses. The RAPD data indicate that, sixty-one out of sixty-nine RAPD amplicons detected were polymorphic (88.4%). In conclusion, the present study represents the potential of salt responsive candidate gene based on SSR and RAPD markers to be utilized as remarkable candidate for diversity analysis among tomato genotypes differing in their response to salinity

Keywords: Solanum lycopersicum L, Salinity, genetic diversity, SSR, RAPD-PCR

معظم أصناف الطماطم تنقسم الي اصناف حساسه التحمل للملوحه و اخري متوسطه التحمل وهذا يؤدي إلى ضعف المحاصيل وانخفاض الإنتاجية الاقتصادية. كان الهدف من هذا البحث هو تحديد تأثير تركيزات مختلفة من الملوحه على نمو سبعة أصناف من الطماطم. تم معاملة النباتات بأربعة مستويات مختلفة من ملح كلوريد الصوديوم. توضح هذه الدراسة إمكانات استخدام الجينات المستجيبه لتحمل الملوحه عن طريق RAPD/SSR .

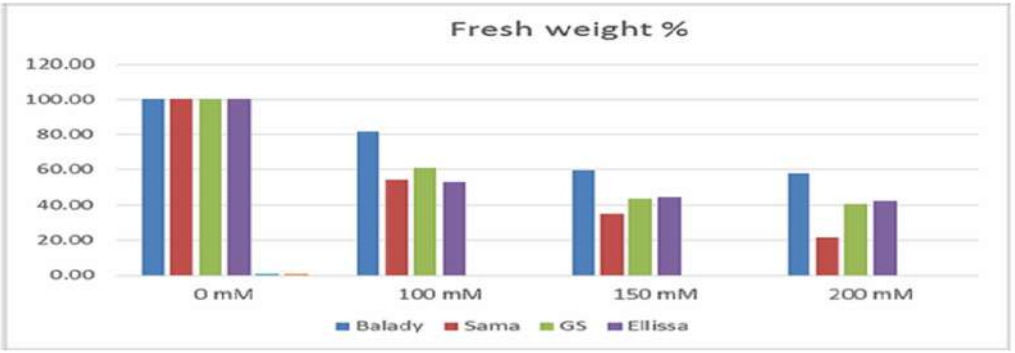


Figure 17: The influence of salinity stress on plant fresh weight (g plants-1) of tomato genotypes exposed for 15 days of different NaCl salinity levels.

The Effect of Biological control Agents on rhizosphere Microbiome

تاثير عوامل المكافحة البيولوجية على الكائنات الحية الدقيقة المحيطة لجذور النبات بالتربة

Nayrouz Mamdouh

162363
Host place: Agricultural Research Center
Internal Supervisor: Dr. Amr Ageez
External Supervisor: Dr. Tarek Ragab

ABSTRACT

The relationship between the plant and rhizosphere microorganisms divides into either positive interaction or negative interaction. *Ralstonia solanacearum* has the ability to infect many plants such as Banana, tobacco, and tomato. In this study, 12 isolates were dentified, followed by the inoculation of tomato seeds and further greenhouse experiment. Seven isolates were shown positive effect and continued with determining the rhizocompetence of these solates with measuring the gene expression level of inducing
systemic resistance genes; LoxA, Pin2, GluA and PR-1a of the plant. The results have shown that all bacterial isolates succeeded in different rates in enhancing the plant defense system.

Keywords: Bacteria; Rhizosphere; Ralstonia solanacearum.

تنقسم العلاقة بين النبات والكائنات الحية المجهرية الموجوده بالتربة المحيطة بجذور النبات إلى تفاعل إيجاب او تفاعل سلبي.*Ralstonia solanacearum* هذا المرض لديه القدرة على إصابة العديد من النباتات مثل الموز والتبغ والطماطم. في هذه الدراسة ، تم تحديد 12 عزلة. أظهرت 7 عزلات تأثيراً إيجابيا متبوعة أظهرت النتائج أن جميع العزلات نجحت بنتائج مختلفة فى التأثير على تعزيز نظام الدفاع عند النبات ؛ بقياس مستوى الجينات المسؤلة عن المقاومة فى النبات *LoxA* و *Pin 2* و *GluA* و *PR-1a*

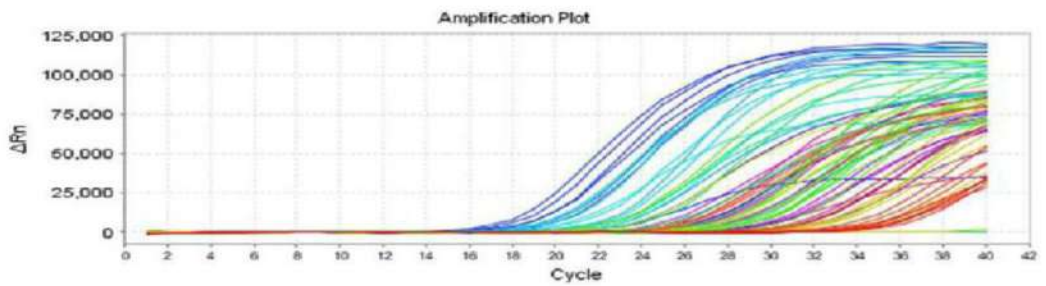


Figure 18: The amplification plot of the four genes representative to the plant defense system

Bacillus Subtilis Bacteria as a Biosorbent for Dye Removal from Industrial Water Effluents

استخدام بكتيريا *Bacillus Subtilis* مادة ماصة لازالة الصبغة من مياه الصرف الصناعى

Abdelrahman Fawzy Rashad

160639

Host place: Academy of Scientific Research and Technology
Internal Supervisor: Dr. Gehan Safwat
External Supervisor: Dr. Merit Rostom

ABSTRACT

Synthetic dyes have been widely used in many industries such as textile, tannery, food, pharmaceutical, pulp and paper, paint, plastics. The effluent discharge from these industries has destructive effects on the environment and human health. The use of biological methods such as bioaccumulation and biosorption through bioflocculation technique is suitable for the removal of such dyes from wastewaters. In this study, bacterial strain of Bacillus subtilis has been used for the removal of crystal violet dye from an Egyptian textile effluent. Complete characterization for the textile effluent before and after treatment with bacterial strain
has been done including TSS, TDS and turbidity

Keywords: textile wastewater effluent, bio-removal, crystal violet.

يزداد استخدام الأصباغ الصناعية في العديد من المناطق حيث انه يتم تصنيع أكثر من 10000 حتي يتم استخدامها علي نطاق واسع في العديد من الصناعات مثل النسيج والدباغة والمواد الغذائية والورق والطلاءالبلاستيك ، تصريف النفايات السائلة من هذه الصناعات لها آثار مدمرة على البيئة والإنسان. استخدام الطرق البيولوجية مثل التراكم الأحيائي والامتصاص الحيوي مناسبة لإزالة هذه الأصباغ من مياه الصرف.وبناءا عليه في هذه الدراسة ، تم استخدام الإجهاد لإزالة الصبغة البنفسجية البلورية من نفايات النسيج المصرية. وتم تحقيق إزالة للصبغه بنسبة تصل الي 98 ٪ من خلال تطبيق تقنية التحلل الحيوي بستخدام بكتيريا *Bacillus Bacillus Subtilis*.

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Bacillus Subtilis Bacteria as a Biosorbent for Dye Removal from Industrial Water Effluents

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ABSTRACT
World population growth and increasing needs to various industries have led to the accumulation of a wide variety of contaminants in the environment and natural resources. The use of synthetic dyes is increasing in many areas. More than 10,000 chemically different dyes are being manufactured. Synthetic dyes have been widely used in many industries such as textile, tannery, food, pharmaceutical, pulp and paper, paint, plastics, electroplating, and cosmetics industries.The effluent discharge from these industries has destructive effects on the environment and human health; reducing sunlight penetration and gas solubility in aqueous ecosystems and mutagenic and carcinogenic effects in

Opportunities and Challenges in bio-treatment of waste industrial water

الفرص و التحديات في معالجة مياة الصرف من المصانع

Ahmed Atteya Taha

155773

Host place: Academy of Scientific Research and Technology
Internal Supervisor: Prof. Ayman Diab
External Supervisor: Dr. Merit Rostom

ABSTRACT

Bio-Processing involves the selective removal of undesirable mineral constituents from an ore through microbe-mineral interactions in the processes such as selective flotation and flocculation. The adhesion of microorganisms to minerals result in alteration of surface chemistry of minerals relevant to beneficiation process due to a consequence of the formation of a biofilm on the surface or bio-catalyzed surface oxidation or reduction products. There is an urgent need for developing basic knowledge that would underpin biotechnological innovations in the natural resource processing technologies that deliver competitive solutions.

Keywords: Bioflocculation, Bioprocessing, biofilm.

المعاملة الحيوية تتضمن عملية الإزالة الأنتقائية لعناصر معدنية غير مرغوب بها من المادة الخام عن طريق تفاعلات ميكروبية معدنية في المعاملات مثل التعويم الأنتقائي و التبلد. . ونتيجة لعملية التصاق الكائنات الدقيقة للمعادن فقد تسبب في تمحور السطح المعدني من الناحية الكيميائية لها علاقة بعملية الأثراء نتيجة لتعاقب في التشكيل الفيلم-الحيوي علي السطح أو سطح متسارع-حيوياً عن طريق الأكسدة أو الأختزال هناك حالة أحتياج طارئة لتطوير المعرفة الأساسية التي قد تسهم في إبتكارات تكنولوجيا-حيوية في المعاملات أو العمليات التكنولوجية للمصادر الطبيعية التي سوف تساعد في الوصول إلي حلول تنافسية.

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Opportunities and Challenges in Bio Treatment of Industrial Waste Water

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Microorganisms,

Bacteria.

ABSTRACT

Microorganisms have a tremendous influence on their environment through the transfer of energy, charge, and materials across a complex biotic mineral–solution interface. The bio-modification of mineral surfaces involves the complex action of microorganism on the mineral surface. The manner, in which bacteria affect the surface reactivity and the mechanism of adsorption and accumulation of the primary data in this area are only starting. Bio-Processing involves the selective removal of undesirable mineral constituents from an ore through microbe-mineral interactions in the processes such as selective flotation and flocculation. At the same time, bio-sorption has made a considerable progress in moving from theory to industrial practice as it is not only

Determination of some organic disinfectants in some packaged food

تحديد بعض المطهرات العضوية في بعض الأغذية المعلبة

Shaden Ahmed Habashy

164901
Host place: QCAP
Internal Supervisor: Dr. Amr Ageez
External Supervisor: Dr. Ossama Elsayed

ABSTRACT

Quaternary ammonium compounds are commonly used in the cleaning products, food industry, detergents, antiseptics, preservatives and disinfectants. They have toxic effects on the aquatic organisms and can cause eye irritation and skin allergy and respiratory diseases such as asthma. The purpose of this study is to determine some quaternary ammonium compounds in packaged food using high performance liquid chromatography (HPLC MS/MS). Twenty-five samples of packaged food were collected from Egyptian markets (Cerelac, Molokhia and Artichoke). The results showed that QACs are used within the acceptable range by the Egyptian companies and all the examined samples were safe for the environment and human use.

Keywords: QACs, disinfectants, LC-MS/MS.

مركبات الأمونيوم الرباعية هي مركبات كيميائية تستخدم عادة في منتجات التنظيف ، صناعة المواد الغذائية المنظفات ، المطهرات ، المواد الحافظة والمطهرات. تؤثر هذه المركبات بالسلب على الكائنات المائية حيث أنها من الممكن أن تسبب تهيج العين والحساسية الجلدية وأمراض الجهاز التنفسي مثل الربو.
الغرض من الدراسة هو تحديد بعض مركبات الأمونيوم الرباعية في الأغذية المعبأة. تم تجميع خمسة وعشرون عينة من الأغذية المعبأه (سيريلاك ، ملوخية ، خرشوف) من الأسواق المصرية . كل المنتجات التي تم تحليلها كانت امنة للانسان و البيئة حيث ان الشركات المنتجة تحرص علي الالتزام بالنسبة المحددة عالميا

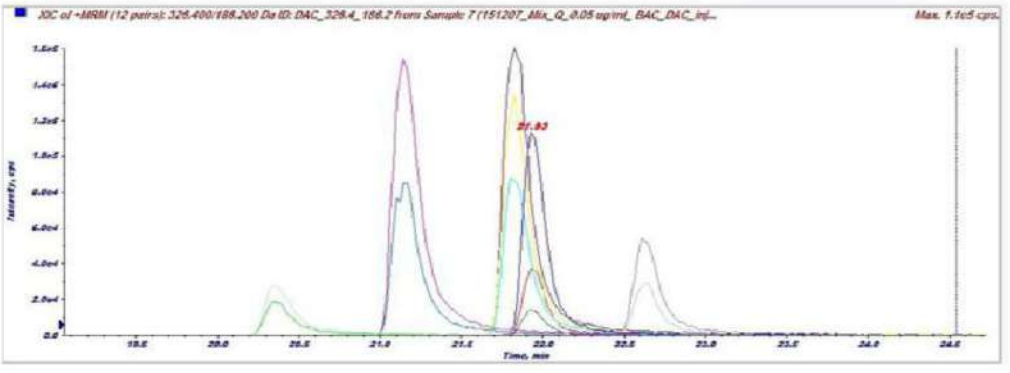

Figure 19: Total ion chromatogram 5 compounds (DDAC, BAC16, BAC14, BAC12 and BAC10

Risk Exposure of aflatoxin in Tahini

خطر التعرض لألفالتوكسين في الطحينة

Hannah Tarek Elbadry

165173
Host place: QCAP
Internal Supervisor: Dr. Gehan Safwat
External Supervisor: Dr. Ahmed Salem

ABSTRACT

Aflatoxins are very dangerous natural toxins that mainly produced by fungal attract to oil seeds. In this study, 117 tahini samples produced from toasted sesame from different Egyptian governments from already known brands moreover, from local unknown sources were collected. Thus, to assess the level of contamination of aflatoxins and estimate the risk exposure. The assessment revealed two different levels of exposure to AFB1 between adults and children. Higher estimated exposure was revealed from local tahini than brand ranged from 0.001 to 0.1 ng/kg b.w./day for adults and from 0.004 to 0.5 ng/kg b.w./day for children.

Keywords: Tahini, Aflatoxin, AFB1, Risk, EDI, MPL

الأفلاتوكسينات هي سموم طبيعية خطيرة للغاية تنتجها بشكل أساسي الفطريات من البذور الزيتية والتوابل تم 1عينة من منتج طحينة مصنوع من السمسم المحمص من مختلف المحافظات المصرية المصرية. تم جمع 17 الكشف عن التعرض التقديري الأعلى من الطحينة المحلية مقارنة بالعلامة التجارية من 0.001 إلى 0.1 نانوغرام / كيلوغرام من وزن الجسم في اليوم للبالغين ومن 0.004 إلى 0.5 نانوغرام / كيلوغرام من وزن الجسمى /و م للأطفال.

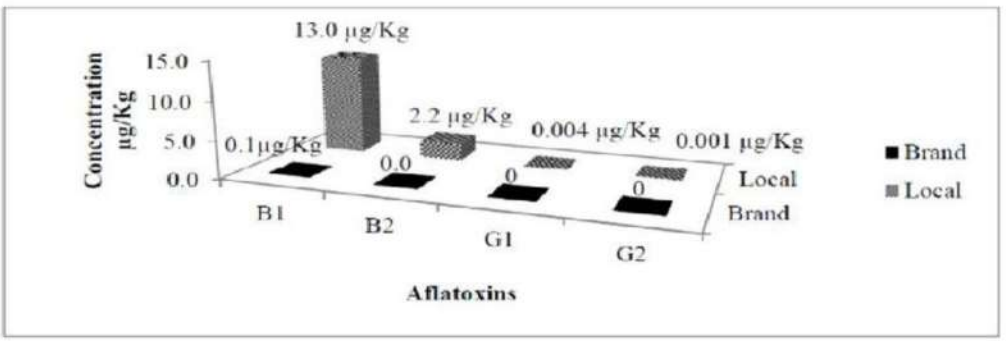

Figure 20: Mean Value of Aflatoxin B1, B2, G1 and G2 in local and Brand samples

FACULTY OF

COMPUTER SCIENCE

Detection of Cervical Cancer Using Computational Genome Assembly

الكشف عن سرطان عنق الرحم باستخدام مجموعة الجينوم الحسابية

Yasmeen Abououf
Hamed Abdelrahman
163011

ABSTRACT

This thesis reported transcriptome sequencing analysis of two hundred and ten cervical cancer tissues and forty-three healthy cervical tissues. All the two hundred and fifty-three samples examined with before and after trim to produced quality reports, to ensure the quality of the data. Paired-end fastq files mapped with the reference genome, which is Human PapillomaVirus (HPV). Through applying backward search with Burrows-Wheeler Transform (BWT) algorithm, to efficiently align short sequencing reads against a long reference sequence such as the human genome, allowing mismatches and gaps. The thesis provides a transcriptome landscape of cervical cancer in Japanese, and Mexican patients and an improved understanding of the genetic regulatory network in HPV gene annotation. The accuracy is various as that the accuracy for Mexicans is from 10% to 50%, and Japanese is from 50% to 97%. This thesis tries to detect cancer before it turns into nodule as early as possible.

ذكرت هذه الرسالة تحليل تسلسل النسخ من مائتين وعشرة أنسجة سرطان عنق الرحم وثلاثة وأربعين الأنسجة عنق الرحم صحية. جميع العينات مائتان وثلاثة وخمسين فحصها قبل وبعد القطع لتقارير الجودة المنتجة ، لضمان جودة البيانات. ملفات fastq المزدوجة نهاية المعينة مع الجينوم المرجعي ، وهو فيروس الورم الحليمي البشري .(HPV) من خلال تطبيق البحث المتخلف باستخدام خوارزمية Burrows-Wheeler Transform (BWT) ، لمحاذاة التسلسل القصير يقرأ بفعالية مقابل تسلسل مرجعي طويل مثل الجينوم البشري ، مما يتيح عدم التطابق والثغرات. تقدم أطروحة المشهد نسخة من سرطان عنق الرحم في المرضى اليابانيين والمكسيكيين وفهم أفضل للشبكة التنظيمية الجينية في الشرح الجيني فيروس الورم الحليمي البشري. الدقة مختلفة حيث أن دقة المكسيكيين تتراوح من ١٠٪ إلى ٥٠٪ ، واليابانية من ٥٠٪ إلى ٩٧٪. تحاول هذه الرسالة اكتشاف السرطان قبل أن يتحول إلى عقيدات في أقرب وقت ممكن.

Object Distance Measurement

قياس المسافة للأشياء

Mostafa Saleh
Ismail Shaban

165415

ABSTRACT

Distance measurement is a unity based application that measures the distance between any selected objects by using augmented reality with ARCore package on the mobile, the application can measure the whole area of a room very easily or measuring the width or the length of a selected object. The ability to measure distance is beneficial to those who cannot measure the distances or the unavailability of workers to record the measurements at some time. By choosing a starting point and ending point the user can start to measure the object or to calculate some area. the application also provides a cube tool that helps the user. The cube tool answers the question of whether this place is suitable or not. This tool is a little bit different from the other kinds of measurement tools is not aims to show numbers, but it aims to show some facts to the user, this tool shows to the user how an object will be in a selected place. By using a 3D cube that allows the user to see the selected object through it when put the cube on the selected object.

هناك نوعان مختلفان لقياس المسافات المختلفة والاول منها هي طريقة قياس المسافة بين الكاميرا ونقطة محددة لقد تم تطبيق هذه الطريقة باستخدام برنامج كمبيوتر باستخدام جافا مع حزمة اوبن سيفي لمعالجة الصور. في الحقيقة قياس المسافة بهذا الطريقة تعتبر عملية بدائية هي مجرد تطبيق اولي لفهم عملية قياس المسافات بأستخدام الكاميرا والطريقة الأخرى هي قياس المسافات بين عدة نقاط يختاره المستخدم عن طريق استخدام تقنية الواقع المعزز. من فوائد تطبيق الطريقة الثانية هي تسهيل عملية قياس المسافات في المناطق الكبيرة ولاتي يصعب على المستخدم قياسها بنفسه. يهدف هذا التطبيق الي توفير الجهد والوقت الي المستخدم وايضا توفير الاتاحة طوال الوقت لان التطبيق على الهاتف بدلا من ان يحمل المستخدم ادوات القياس طوال الوقت. التطبيقات التي يتم تنفيذها باستخدام الواقع المعزز تفيد المستخدمين بشكل كبير وتعتبر هي المستقبل الحقيقي لتطور التكنولوجيا في العالم بأسره. اثناء القيام بتنفيذ قياس المسافات بين نقطة ونقطة (الطريقة الثانية) وجدنا انه يمكن تقديم نوع اخر من أنواع القياس وهي اداة المكعب. اداة المكعب هي نوع مختلف قليلا عن انواع قياس المسافات الطبيعية لأنها لا تهدف الي اعطاء المستخدم ارقام بل تهدف الي اعطاء المستخدم الحقائق.

Data analysis Coronary Artery Heart Disease

تحليل البيانات لأمراض الشريان التاجي بالقلب

Menntullah Tarek Farag
162169

ABSTRACT

Coronary artery heart disease (CAHD) is a condition where plaque, a waxy substance, develops and builds up inside the coronary arteries and blocks the blood flow. Coronary arteries play a crucial role in a human's body since they are the courses that fund oxygen-rich blood to the heart muscle; thus, if the coronary arteries are gridlocked, the organs won't receive blood and will fail, leading to a heart attack. The early prognosis of CAHD will encourage the making of timely change in an individual's lifestyle to prolong their lifetime span and successively scale back their complications or risks. The verdict of CAHD concluded from merely outdated medical past history is no longer measured as reliable in many aspects. Research has tried to pinpoint the foremost authoritative factors of CAHD through data processing techniques. The analysis of nowadays have examined the amalgamating of these data processing techniques. This project takes advantage of Data Mining and Machine Learning models and technique to predict heart disease.

مرض الشريان التاجي (CAHD) هو حالة تتطور فيها البلاك ، وهو مادة شمعية ، ويتراكم داخل الشرايين التاجية ويمنع تدفق الدم. تلعب الشرايين التاجية دورًا مهمًا في جسم الإنسان نظرًا لأنها الدورات التي تمول الدم الغني بالأكسجين لعضلة القلب ؛ وبالتالي ، إذا كانت الشرايين التاجية متشابكة ، فإن الأعضاء لن تتلقى الدم وسوف تفشل ، مما يؤدي إلى نوبة قلبية. سيشجع التشخيص المبكر لـ CAHD على إحداث تغيير في الوقت المناسب في نمط حياة الفرد لإطالة فترة حياته وتقليص مضاعفاته أو مخاطره على التوالي. الحكم من CAHD استنتج من مجرد التاريخ الماضي الطبي الذي عفا عليه الزمن لم تعد تقاس موثوق بها في العديد من الجوانب. حاولت الأبحاث تحديد أهم العوامل الموثوقة للـ CAHD من خلال تقنيات معالجة البيانات. فحص تحليل هذه الأيام دمج تقنيات معالجة البيانات هذه. يستفيد هذا المشروع من نماذج وأساليب تعدين البيانات والتعلم الآلي للتنبؤ بأمراض القلب.

OCR Receptors Algorithm

خوارزمية مستقبلات التعرف الضوئي على الحروف

Amro Walid
Muhammad Khairy

163465

ABSTRACT

Managing home budget is one of the greatest concerns in every family. Daily family purchases may include unnecessary items or products purchased in excess amount. The prices are uncontrollable and it is very hard for a human memory to recognize its fluctuations. If we want to manage our budget, we will need to hire an accountant for analyzing our cheques and purchase receipts. Accountant will digitalize the receipts and cheques and then preform analytics methods to extract the important information for budget control. So, the project will automate the accountant job as well as providing further solutions to both the consumers and producers. The project will have further functions other than automating the accounting process such as data collection for data mining. Accounting process will be automated using different technologies such as Optical Character Recognition "OCR" to digitalize the receipts and cheques.

إدارة ميزانية المنزل هي واحدة من أكبر المخاوف في كل أسرة. قد تشتمل المشتريات العائلية اليومية على سلع أو منتجات غير ضرورية التي تم شراؤها بكميات زائدة. الأسعار لا يمكن السيطرة عليها ومن الصعب للغاية للذاكرة البشرية أن تدرك تقلباتها. إذا كنا نريد إدارة ميزانيتنا ، فسنحتاج إلى تعيين محاسب لتحليل الشيكات وإيصالات الشراء الخاصة بنا. يقوم المحاسب برقمنة الإيصالات والشيكات ثم يقوم بتشكيل طرق التحليل لاستخراج المعلومات المهمة من أجل التحكم في الميزانية. لذلك ، فإن المشروع سوف يقوم بوظيفة المحاسب وكذلك لتوفير المزيد من الحلول لكل من المستهلكين والمنتجين. سيكون للمشروع وظائف أخرى بخلاف أتمتة العملية المحاسبية مثل جمع البيانات لاستخراج أنماط .سيتم أتمتة عملية المحاسبة باستخدام تقنيات مختلفة مثل التعرف الضوئي على الأحرف لترقيم الإيصالات والشيكات.

Gender Recognition Using Euclidean Distance Classification

الاعتراف بالجنس باستخدام تصنيف المسافة الإقليدية

IMAGE HERE

Ibrahim Osama Khairy El-Tamimi

164571

ABSTRACT

Gender recognition plays an important role in many fields, where many industries want to provide this service of gender automatic recognition. It also plays a big role in marketing strategies where this system can help tell which gender is interested in a specific product more. This project will be able to identify whether a person in a specific image is male or female using SIFT descriptor key points, the feature vector of the faces from images, classify the input using the Euclidean distance and the success percentage after using several testing methodology and the best percentage came from one to average method which is 70%. For future work of this project, Machine learning could be added and will change a lot in the final results as in using machine, the key points that being generated could be used in training several images and by testing it will automatically give me the result whether the gender is female or male without using computational method and a lot of mathematics as in Euclidean distance method.

ان التعرف على نوع الجنس له دورًا مهمًا في العديد من المجالات ، حيث ترغب العديد من الصناعات في تقديم هذه الخدمة للتعرف التلقائي على النوع الاجتماعي. كما أنه يلعب دورًا كبيرًا في استراتيجيات التسويق حيث يمكن لهذا النظام المساعدة في تحديد النوع الاجتماعي المهتم بمنتج معين أكثر. سيكون هذا المشروع قادرًا على تحديد ما إذا كان شخص ما في صورة معينة ذكرًا أو أنثى باستخدام نقاط مفتاح واصف SIFT ، وموجه المعالم للوجوه من الصور ، وتصنيف المدخلات باستخدام المسافة الإقليدية ونسبة النجاح بعد استخدام منهجية الاختبار و جاءت أفضل نسبة من طريقة واحدة إلى متوسطة وهي ٧٠٪. بالنسبة للعمل المستقبلي لهذا المشروع ، يمكن إضافة "التعلم الآلي" وسوف يتغير كثيرًا في النتائج النهائية كما هو الحال في استخدام "الجهاز" ، ويمكن استخدام النقاط الرئيسية التي يتم إنشاؤها في تدريب عدة صور ومن خلال اختباره ، سيعطيني تلقائيًا النتيجة سواء الجنس أنثى أو ذكر باستخدام الطريقة الحسابية والكثير من الرياضيات كما هو الحال في طريقة المسافة الإقليدية.

Lung Disorder Detection Using Deep Learning

كشف اضطرابات الرئة باستخدام التعلم العميق

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160105

ABSTRACT

This study included 8128 images collecting the air flow information in a transversal section inside the trachea. These images were divided into two types of datasets. The first type was only a picture of the collected air particles in a specific section in the trachea. The second type was heat map images for the flow of the air through 24 hours. Each set was divided into 4 groups including non-patient group beside other 3 different types of disorders. In order to use the deep learning in diagnosis, two different of Convolution neural network CNN models were used. CNN is a branch in deep learning which is specific in processing images. Each group was divided into training and testing sets. The CNN models where trained to learn the features in the images having the best training accuracy. The trained model was evaluated by calculating the performance accuracy of the testing datasets. The results showed that CNN models could diagnose the lung disorders by accuracy 95.77% and 93.5% for the heatmap and particles' models. Thus, deep learning managed to diagnose lung disorders using airflow images inside the trachea.

تضمنت هذه الدراسة ٨١٢٨ صورة تجمع معلومات تدفق الهواء في قسم داخل القصبة الهوائية. تم تقسيم هذه الصور إلى نوعين من مجموعات البيانات. النوع الأول كان مجرد صورة لجزيئات الهواء التي تم جمعها في قسم معين في القصبة الهوائية. النوع الثاني كان صور حرارية لتدفق الهواء خلال ٢٤ ساعة. بعد ذلك تم تقسيم كل مجموعة إلى ٤ مجموعات بما في ذلك مجموعة غير المريض بجانب ٣ أنواع مختلفة من الاضطرابات. من أجل استخدام deep learning في التشخيص ، تم استخدام نوعين مختلفين من نماذج CNN. Convulation Neural Network فرع من فروع Deep Learning وهو خاص بمعالجة الصور. تم تقسيم كل مجموعة إلى مجموعات التدريب والاختبار.بالاضافة الى ذلك تم تدريب نماذج CNN على تعلم الصفات داخل الصور حتى الوصول الاى اعلى معدل من الدقة. تم تقييم النموذج المدرّب من خلال حساب دقة أداء مجموعات الاختبار. أظهرت النتائج أن نماذج CNN يمكنها تشخيص اضطرابات الرئة بدقة ٩٥,٧٧ ٪ و ٩٣,٥ ٪ لخرائط الحرارة والجزيئات. وهكذا ، دليلا على تمكن Deep Learning من تشخيص اضطرابات الرئة باستخدام صور تدفق الهواء داخل القصبة الهوائية.

NutriPal – Food Recognition Android App for Nutrition Awareness

نيوترى بال - تطبيق أندرويد للتوعية الغذائية

Seifeldin Khaled Farouk

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ABSTRACT

Health and wellness are becoming among the list of arising concerns regarding the human life. Unquestionably, nutrition and health are two of the most valued parts of life. Therefore, it is essential to encourage people to be more aware of their health using technology. With the rapid evolution of technology, health info is much more available and accessible than ever before. More importantly, having bad nutrition and lifestyle can eventually lead to untreatable diseases and severe health problems so it has become a matter of saving people's lives. This project is an attempt to create a food recognition Android application that would be a nutritional tool for individuals to be more aware of their nutrition. The application lets the user take the photo of the food and show its nutritional contents. Finally, this project explores the idea of people having highly valuable information in their pockets that can help them make better decisions and ultimately, live a healthier life.

اصبح للصحة والعافية مقامً عالي الأهمية في حياة الإنسان، فإن التغذية السليمة و الصحة البدنية أهم ما في حياة الإنسان بلا جدال، لذالك يجب تحفيز الأشخاص على الاهتمام بصحتهم من خلال التكنولوجيا الحديثة. مع التطورات السريعة لالتكنولوجيا أصبحت المعلومات الصحية متوفرة و سهلة الحصول عليها. جديرًا بالذكر أن التغذية و أسلوب الحياة السيئين يوقعون بالإنسان ضحية لأمراض بدون علاج و كوارث صحية خطيرة، فإن هذا البرنامج سوف يساهم في إنقاذ حياة الإنسان بالتحسين من تغذيته و اسلوب حياته. هذا المشروع يسعى إلى إنشاء تطبيق آندرويد يعمل كوسيلة تغذيه توعوية لمستخدميه، يتيح للمستخدم التقاط صورة لطعامه فتُتَرجم من خلال البرنامج إلى محتواها الغذائي. في النهاية، هذا البرنامج يستكشف فكرة حصول الأشخاص على معلومات مهمه من خلال التكنولوجيا التي دائما بحوذتهم لأخذ قرارات أفضل و جوهريًا، معيشة حياة صحية أكثر.

Image Based Parkinson Disease Diagnostics

تشخيص مرض باركنسون عن طريق الصور

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ABSTRACT

Parkinson's Disease (PD) is a neurodegenerative disorder. It is known for affecting the brain or spinal cord in which it makes them lose cells and which results over time to make the patient face several dysfunctions as well as disabilities. The goal of this thesis is to provide an advanced facility to hospitals in order to aid doctors in diagnosing such a disease which normally takes a long amount of time to be diagnosed by the doctor alone. This happens by simply analysing the Magnetic Resonance Image (MRI) of the patient. In this thesis, deep learning is used, specifically using, Convolutional Neural Networks (CNN) as an architecture with reaching an accuracy of 81%. In order to make it more reliable in hospitals, or the medical industry in general, minor changes and updates could be made in order to achieve a higher accuracy. Other diseases that depend on the nervous system and could be documented using MR images are expected to be worked on thoroughly as well just like Parkinson's Disease in this thesis since similar trends will be applied.

مرض باركنسون (PD) هو اضطراب تنكس عصبي. ومن المعروف أنها تؤثر على الدماغ أو الحبل الشوكي الذي يجعلها تفقد الخلايا والتي تنتج مع مرور الوقت لجعل المريض يواجه العديد من الاختلالات وكذلك الإعاقة. الهدف من هذه الأطروحة هو توفير تسهيلات متقدمة للمستشفيات من أجل مساعدة الأطباء في تشخيص مثل هذا المرض الذي عادة ما يستغرق فترة طويلة من الوقت لتشخيصه من قبل الطبيب وحده. يحدث هذا بمجرد تحليل صورة الرنين المغناطيسي للمريض. في هذه الأطروحة ، يتم استخدام التعلم العميق ، وتحديدا باستخدام الشبكات العصبية التلافيفية (CNN) كهيكل هندسي يصل إلى دقة ٨١ ٪. من أجل جعلها أكثر موثوقية في المستشفيات ، أو في المجال الطبي بشكل عام ، يمكن إجراء تغييرات طفيفة وتحديثات من أجل تحقيق دقة أعلى. من المتوقع أن يتم التعامل مع الأمراض الأخرى التي تعتمد على الجهاز العصبي والتي يمكن توثيقها باستخدام صور MR بشكل جيد تمامًا مثل مرض باركنسون في هذه الأطروحة حيث سيتم تطبيق اتجاهات مماثلة. كميزة ، ستتمتع الصناعة الطبية بالقدرة على العمل باستخدام برامج أكثر دقة قد تبدأ في استبدال الأعمال المخبرية المستهلكة للوقت بمرور الوقت.

computer science:Neural Network

Detecting Depression from Text Using Convolutional Neural Networks and Word Embeddings

الكشف عن الاكتئاب من النص باستخدام الشبكات العصبية التلافيفية وزخارف الكلمة

Kareem Amr Samir
160577

ABSTRACT

Depression has proved to be a major issue in our world for several decades. History teaches us that almost everyone is at peril of suffering from depression. Due to late diagnosis or none at all, millions of people unknowingly suffer from depression which then leads to catastrophic results. Previous studies have shown promise in detecting depression cues from text using Natural Language Processing techniques, using data compiled and manually annotated from Twitter. This project proposes to use a compiled list of manually annotated Twitter users as depressed or not, which was then used to retrieve said users' tweets. Moreover, given that Convolutional Neural Networks have been shown to be quite versatile in the problem of text classification, especially when coupled word embeddings as features – this was used the classification model to solve our problem.

لقد ثبت أن الاكتئاب يمثل مشكلة رئيسية في عالمنا لعدة عقود. يعلمنا التاريخ أن الجميع تقريبا معرضون لخطر المعاناة من الاكتئاب. ملايين الأشخاص يعانون من اكتئاب بسبب التشخيص المتأخر أو لا شيء على الإطلاق، مما يؤدي إلى نتائج كارثية. لقد أظهرت الدراسات السابقة واعدة في اكتشاف إشارات الاكتئاب من النص باستخدام تقنيات معالجة اللغة الطبيعية ، وذلك باستخدام البيانات التي تم تجميعها والتعليق عليها يدويًا من .Twitter يقترح هذا المشروع استخدام قائمة مجمّعة من مستخدمي Twitter المشروحين يدويًا على أنهم مكتئبون أم لا ، والتي تم استخدامها بعد ذلك لاسترداد تغريدات المستخدمين المذكورة. علاوة على ذلك ، نظرًا إلى أن الشبكات العصبية التلافيفية قد أثبتت أنها متعددة الجوانب تمامًا في مشكلة تصنيف النص ، خاصةً عند استخدام حروف الكلمات المزدوجة كميزات - تم استخدام نموذج التصنيف هذا لحل مشكلتنا.

Enabling Brain Typing Via LSTM Recurrent Neural Network

تمكين كتابة الدماغ عن طريق LSTM الشبكة العصبية المتكررة

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ABSTRACT

The project aims to make a BCI application that reads the human brain signals from an EEG device that then classifies these signals to commands that write the wanted text.By using deep learning the application will be able to classify these received signals and make use of these classes to be converted into commands to write the specified text. This state-of-the-art field can lend a helping hand and enable those who are physically disabled to be able to communicate better. The project is consisting of 2 phases. Phase one: which the user wears the EEG headset and by collecting data to feed it to the RNN model that will later train on these data for better analysis of the signals. Phase two: where the model have trained on this person data and able to classify his signals, all he will do is to imagine doing 1 of the 5 commands which are: moving right hand, moving left hand, moving legs, closing eye, moving both hands. Furthermore, this will help him to choose the specified letter to write the wanted word. By developing a high accuracy deep learning model this will help the humanity to have much brighter future.

يهدف المشروع إلى إنشاء تطبيق BCI يقرأ إشارات الدماغ البشري من جهاز EEG الذي يصنف هذه الإشارات إلى أوامر تكتب النص المطلوب. باستخدام التعلم العميق ، سيكون التطبيق قادرًا على تصنيف هذه الإشارات المستلمة والاستفادة منها يتم تحويل الفئات إلى أوامر لكتابة النص المحدد. يمكن لهذا الحقل الحديث تقديم يد العون وتمكين المعاقين جسديًا من التواصل بشكل أفضل. يتكون المشروع من مرحلتين. المرحلة الأولى: يرتديها المستخدم سماعة الرأس EEG ومن خلال جمع البيانات لإطعامها لنموذج RNN الذي سيتدرب لاحقًا على هذه البيانات لإجراء تحليل أفضل للإشارات. المرحلة الثانية: حيث تدرب النموذج على بيانات هذا الشخص وقادر على تصنيف إشاراته ، كل ما سيفعله هو تخيل القيام بأحد الأوامر الخمسة وهي: تحريك اليد اليمنى ، تحريك اليد اليسرى ، تحريك الساقين ، إغلاق العين ، التحرك كلتا يديك. علاوة على ذلك ، سوف يساعده ذلك في اختيار الحرف المحدد لكتابة الكلمة المطلوبة. من خلال تطوير نموذج تعليمي عميق وعالي الدقة ، سيساعد هذا الإنسانية على تحقيق مستقبل أكثر إشراقًا.

FACULTY OF

DENTISTRY

Esthetic Rehabilitation

Yaman Momtaz
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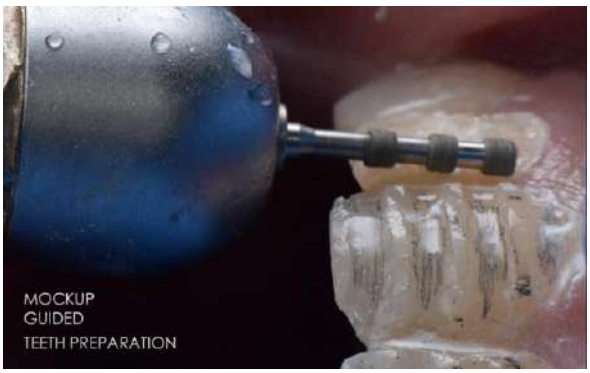
151085

ABSTRACT

A 23 years old female patient has suffered from bad esthetics and psychological insecurity about her smile due to Enamel hypoplasia, she was going to get married in a matter of weeks from the start of our project. We managed to get her smile and confidence to the highest level in time and we finished before her wedding day leaving her highly satisfied and confident. To achieve that we had to do a series of treatment for her inflamed gingiva by scaling and polishing. Then as a part of our smile design, we decided to do a simple gingivectomy procedure before preparing her teeth and delivering the final smile with e-max crown and veneers.

Supervisor:
Dr. Ahmed Wagdy
T.A. Aya Ghoneim


MOCKUP


MOCKUP
GUIDED
TEETH PREPARATION


VENEERS AND CROWN
(ON CAST WITH GINGIVAL SIMULATION)


AFTER TEETH PREPARATION


• NATURAL DETAILS

Computer-Guided All-On-Four Hybrid Prosthesis

Sarah
Abou El Fetouh
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ABSTRACT

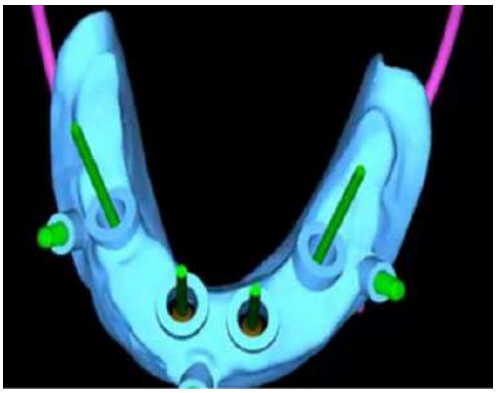
A completely edentulous patient came to the outpatient clinic in MSA University seeking a fixed solution instead of his poorly retained mandibular complete denture. Upon clinical and radiographic examination revealed that the posterior ridge was severely resorbed. Thus, All-On-Four mandibular prosthesis was indicated for this case. A CAD-CAM surgical guide was digitally designed and constructed in order to perform computer guided 4 implant placement using flapless surgical technique. After 4 months of osseo-integration, implants were loaded with a fixed detachable hybrid prosthesis restoring both function and aesthetics for the mandibular ridge.

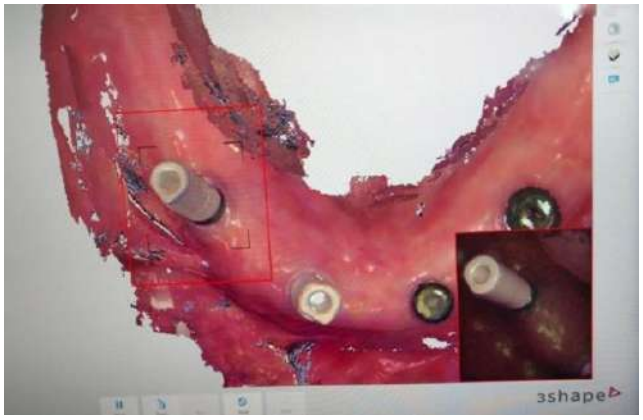
Supervisor:

Prof. Naglaa El Wakeel
Ass.Prof. Shereen Wagdy
Ass.Prof. Mohamed Elbaz
Dr. Dina Elawady









3shape

Esthetic Rehabilitation

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Ahmed Atyia
150457

ABSTRACT

A 29 year male patient came to MSA clinics complaining from his bad smile and discoloration of teeth. Upon clinical and radiographic examination, it was found that he had multiple teeth spacing and discoloration. The treatment Plan started with scaling & polishing and oral hygiene improvement. Followed by fabrication of motivational mockup. Then crown lengthening was performed to modify zenith point according to the pre-fabricated mockup. Teeth were prepared for guided veneers for the upper six anterior teeth and 1st premolars. Finally, isolation & cementation of veneers were performed.

Supervisor:
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Esthetic Rehabilitation

Ehab Hazem
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ABSTRACT

A 46 years old female hypertensive patient came to MSA clinics with badly decayed anterior teeth and heavy stains in remaining teeth. She also had bilateral missing mandibular 1st molars. The chief complaint was restoring esthetics for her anterior teeth and restoring the missing teeth. Clinical and radiographic examination were performed and a treatment plan was set. Many challenges were faced such as modifying oral hygiene habits and lower the amount of unfavorable food intake in order to enhance the prognosis of the proposed treatment plan and prosthesis. Crown lengthening was performed first, then two implants were placed to restore the missing teeth, and endodontic treatment together with resin composite restorations were performed.

Supervisor:
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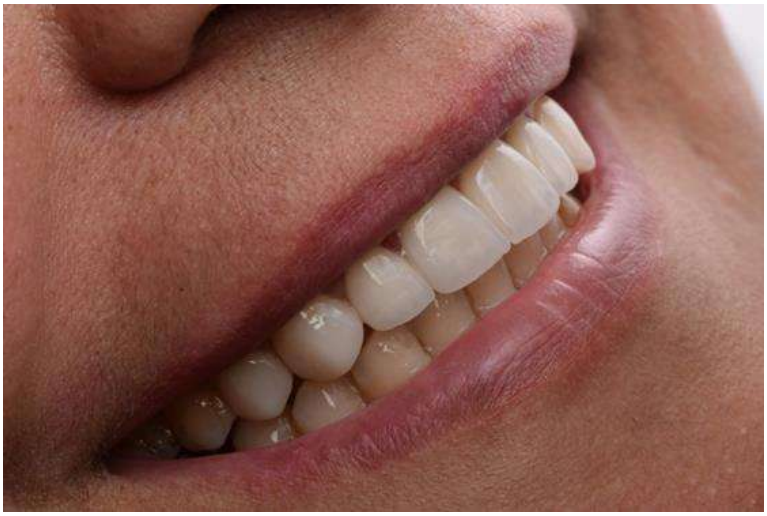
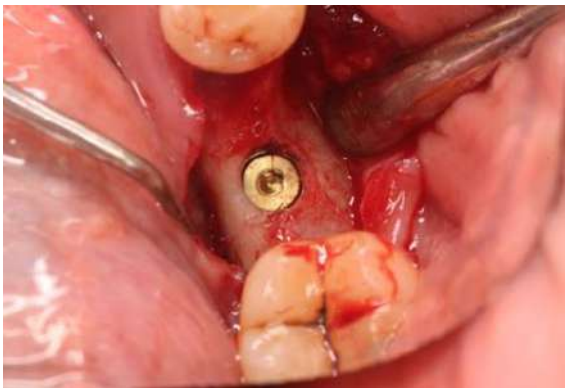
Dr. Nada Zaazou
Dr. Faisal Safwat
Dr. Ahmed Wagdy
T.A. Aya Ghonim
T.A. Tarek Hammad






Full mouth rehabilitation case using computer guided surgery for correction of occlusion and vertical dimension

Manar Aawd
151473

Aisha Mazen
152211

Aya Gamal
152045

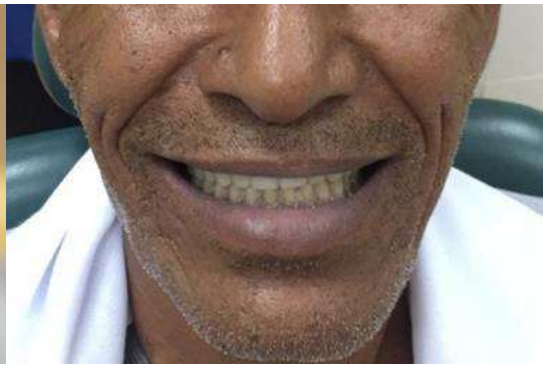
Aly Ashraf
153741

ABSTRACT

A heavy smoker 53 year male patient was a case challenge for rehabilitation and correction of occlusion and vertical dimension of occlusion. Alteration of the smoking habit gradually together with periodontal treatment were performed. Treatment of candida infection was confirmed. Then removal of remaining roots was performed. Implant placement using computer guided surgery and 3D printed surgical guide was used for implant placement in the edentulous mandible (4 implants). An over denture (all on 4) was fabricated for the lower arch after 4 months of implant osseo-integration. An upper complete denture was fabricated as well to restore normal occlusion, function and esthetics.

Supervisor:

Ass.Prof.Dr. Shereen Wagdy
Ass.Prof.Dr. Waleed Maryod



Full Mouth Rehabilitation: A Multidisciplinary Approach to Restore Function and Esthetics

Hadeer Samir
153935

Heba Tallah Tarek
150565

Fatma Nashee
155525

Ahmed Momen
154569

Abdelrahman Shawky
153291

Abdelrahman Mostafa
151015

ABSTRACT

A 23 years old female patient presented to MSA clinics with multiple carious lesions, badly deteriorated teeth as well as missing teeth due to bad oral hygiene. Upon clinical and radiographic examination, full mouth rehabilitation was planned. Periodontal therapy was applied followed by conservative treatment for all carious lesions and defective restorations. Moreover, endodontic treatment and re-treatment were performed in all non-vital teeth. In addition, we promoted to fixed prosthodontic therapy. Not only it included several posts and cores multiple full coverage single crowns, but also endo-crown and long span bridge. Finally, surgical extraction of non-restorable teeth was performed, and implant placement was planned. Patient's esthetics, function, and satisfaction was the achieved goal.

Supervisor:

Dr.Mona Fadel
Dr.Ahmed Wagdy
T.A. Samar Fathy
T.A. Aya Ghoneim
Dr. Mohamed Mokhtar
T.A.Hassan Naguib
T.A.Ahmed Ibrahim

Direct Full Mouth Restorative Rehabilitation

Kareem Abdelfattah
151791

Omar Ehab
152387

Dina Khaled
150127

Heba Hossam
153091

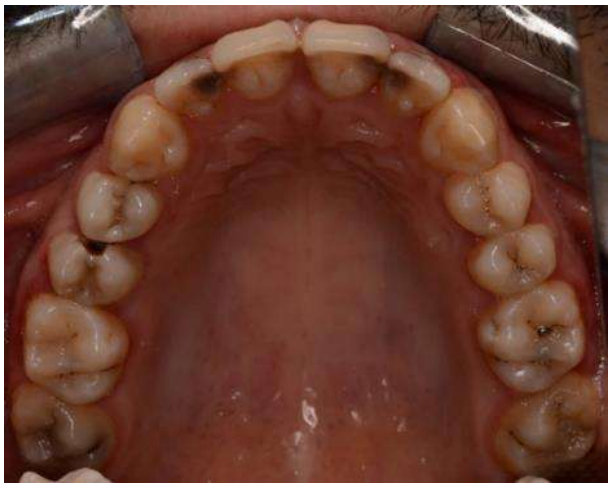
Abdelaziz Magdy
151941

ABSTRACT

A 22 old male patient presented to MSA clinics with multiple badly decayed teeth. The patient was embarrassed form his smile. After clinical and radiographic examination, a treatment plan was set to restore esthetics without affecting the function. Regarding the patient chief complain, the treatment plan started with periodontal therapy (scaling & polishing) followed by conservative therapy for anterior teeth then posterior teeth. Endodontic treatment is done in the two exposed teeth followed by post and core placement. Finally, fixed prosthesis was performed.

Supervisor:

Prof.Dr. Heba Taher
Ass.Prof.Dr. Nermine Hamza
T.A. Tarek Nour



Restoring aesthetics for a generalized rampant caries case

Nada Attia
153353

Mai Sedeek
152373

Abeer Khaled
150077

Hossam Abbas
153119

Ahmad Alaa-Eldin
152415

ABSTRACT

A 26 year old male patient presented to MSA clinics with multiple class III caries, multiple class V caries in all upper anterior teeth and 1st premolars bilaterally and lower canines and premolars bilaterally, multiple class I cavities in lower molars, upper premolars, with external stains due to drinking lots of coffee and internal stains due to enamel hypo-calcification. Occlusal wear in some teeth, missing teeth, and exposed teeth were also diagnosed. Patient was also presented with slight open bite. A proper treatment sequential plan was set to reach the proper function and esthetic of this challenging case.

Supervisor:

Dr. Ali Abdel Nabi
L.A. Amr Khaled
T.A.Shorouk Hesham
T.A.Tarek Nour
Dr Mona Fadel
T.A.Menna El-Selhdar
T.A. Ahmed Mohsen

Full mouth rehabilitation and esthetic restoration of severely mutilated teeth

Nehal Kamal
150679

Yasmin Fathy
151565

Mennatallah Hossam
154213

ABSTRACT

A 30 years old male patient came to MSA clinics with bad oral hygiene, badly decayed teeth and remaining roots .A treatment plan was set to restore function and esthetics. The treatment plan started with periodontal and surgical therapy, followed by conservative therapy to restore vital teeth with Glass-ionomer to enhance oral hygiene. Then, endodontic therapy for non-vital teeth followed by fiber posts and cores to re-build badly decayed teeth. Then PMMA crowns were used for the try-in that showed canting in upper anterior teeth. So, a face-bow record is re-taken. Finally, teeth received zirconia crowns.

Supervisor:

Dr. Ahmed Wagdy
Dr. Faisal Hamza
T.A. Aya Ghoneim

Esthetic Rehabilitation with Smile Design

Dina
Ashraf
151963

ABSTRACT

A 24 year female patient came to MSA clinics complaining from esthetic problem due to failed previous orthodontic treatment. Upon clinical and radiographic examination, patient had gummy smile and necrotic pulp in upper left central tooth. She refused orthodontic retreatment, and we had to finish her treatment plan within one month before her wedding time. So we started immediately with scaling, polishing, and oral hygiene improvement. Then Root Canal Treatment in the upper left central incisor was performed. Finally, veneer preparation, isolation, and cementation was performed to restore esthetics.

Supervisor:
Prof.Dr. Naglaa El-Wakeel
Dr. Ahmed Wagdy
Dr. Ahmed Ezz

Esthetic Rehabilitation

Essam Nasr
152273

Mohamed Safi
150263

Omar Mohamed
151823

Tarek Adham
150251

Yahya Alaa
152199

ABSTRACT

The patient came to MSA clinics seeking esthetic problem. After proper clinical and radiographic examination, suitable treatment plan was performed as to start with supra-gingival and sub-gingival scaling, polishing and oral hygiene instructions. Followed by surgical extraction of the remaining root of the upper right canine. Then restoration of cervical caries in lower right and left 1st premolars were performed, and restoration of caries in lower left 3rd molar tooth, upper right and left lateral incisors, upper right central incisor, upper left canine, and upper right and left 1st premolars were performed. Finally, bilateral endo-treatment of lower left and right 1st molar teeth were performed.

Supervisor:

Dr. Mohamed Yehia
Dr. Nada Zazou
Dr. Mona Fadel

Full Mouth Rehabilitation of Severely Mutilated Teeth for a Periodontally Compromised Patient

Noha Mostafa
150629

Sara Samir
152099

Salma Al-Hussein
150145

ABSTRACT

A 40 year old male patient with bad oral hygiene and severely destructed teeth complained from pain and loss of function and esthetics. The case was challenging from the very beginning due to the periodontal condition which resulted in severe bone loss especially in the upper posterior area bilaterally. After a thorough periodontal assessment and reviewing the radiographs, the hopeless and diseased teeth were removed and a strict oral hygiene regimen was followed to turn the patient into a stable periodontal condition. Restoration of decayed teeth and replacement of the missing ones followed the stabilization of the periodontium. The outcome exceeded the expectations. The treatment improved the patient's quality of life psychologically and functionally.

Supervisor:

Dr.Mohamed Mokhtar
Dr.Mohamed Moussa
T.A. Mark Tharwat

Full Mouth Rehabilitation

Habiba Ibrahim
165545

Nada Askalany
161429

Maisoun Saeed
153333

Sherif Abdel Baset
152471

Yasmine Ayman
152607

ABSTRACT

The patient chief complaint was function and esthetic. After proper clinical and radiographic examination, a treatment plan was set. First, we did supra-gingival and sub-gingival scaling and polishing to improve the oral hygiene of the patient. Then endodontic treatment for the pulp-involved teeth was performed. Followed by, operative treatment for carious teeth, and finally, restoring the missing teeth with fixed bridges. The lower arch has a free end saddle, so it will be restored by removable denture. The main problem with this case was the oral hygiene and how to guide the patient to improve it.

Supervisor:

Dr. Ahmed Wagdy
T.A. Ahmed Ibrahim
T.A. Aya Ghoneim

Esthetic Rehabilitation

Omar sarwat
155269

Rana Elsharawy
154355

Omar Ammar
153967

Mohamed A. Khattab
152143

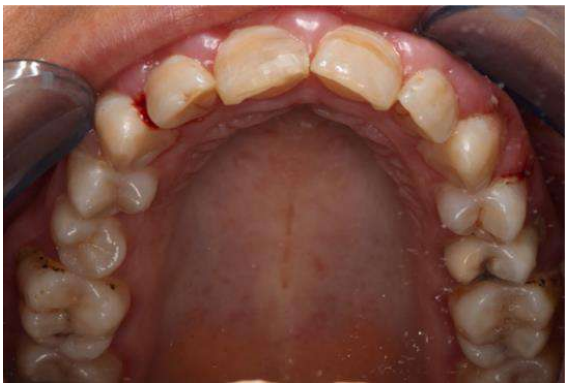
Nouran Khaled
154067

ABSTRACT

A 22 year old female patient presented to MSA clinics with multiple carious teeth and unsatisfied with her smile. After clinical and radiographic examination, a full smile makeover was planned for the patient. We started with periodontal treatment in form of scaling and polishing, followed by endodontic, and operative treatments. Restorative treatment was performed to all molar and premolar teeth of the upper arch. Restorative treatment to all molar teeth of the lower arch was performed except for the lower left 1st molar endodontic treatment was performed.

Supervisor:

Dr. Hinar El Moghazi
Dr. Sherif Hifnawy
Dr. Nada Zaazou



Full Mouth Rehabilitation Using Digital PEEK Framework

Rahaf Jaber
152233

Zeyad Samra
132325

Mariam El- Sayed
144531

Youssef Girgis
100541

ABSTRACT

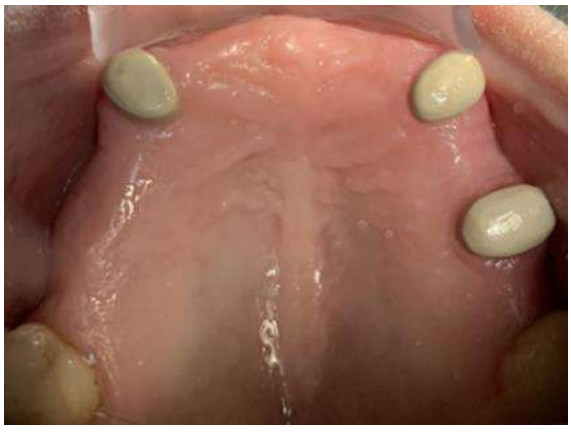
Restoration of maxillary and mandibular arches with severe attrition and few remaining teeth in a 51 years old patient using peek material was a challenging case came to MSA clinics. Challenges faced were mainly loss of the vertical dimension, severe attrition, no bite and few remaining teeth. After proper clinical and radiographic examination, a treatment plan was set to be started with scaling and polishing, and oral hygiene improvement. Followed by multiple endodontic treatments, extraction of non-restorable teeth, restorative procedures, fixed and removable prosthesis. Finally, the outcome was mainly restoration of the bite, VD and esthetics.

Supervisor:

Ass.Prof. Shereen Wagdy
Ass.Prof. Waleed Maryod
Dr. Alaa Naguib
Dr. Ali Youssef
Dr.Ahmed Wagdy
A.L. Ahmed Ezz
T.A. Sara Manaem








Bio-printing


Israa Abdelbadie
150687


Marina ezzat
155367


Mohamed tarek
151825


Kareem hatem
151225


Hossam Elkady
153119


Abdelrahman Mohamed
151049


Rawan Hosam
153787


Samar Abdelhakeem
151745


Sherif Mohamed
155293


Mohamed Hussien
151777

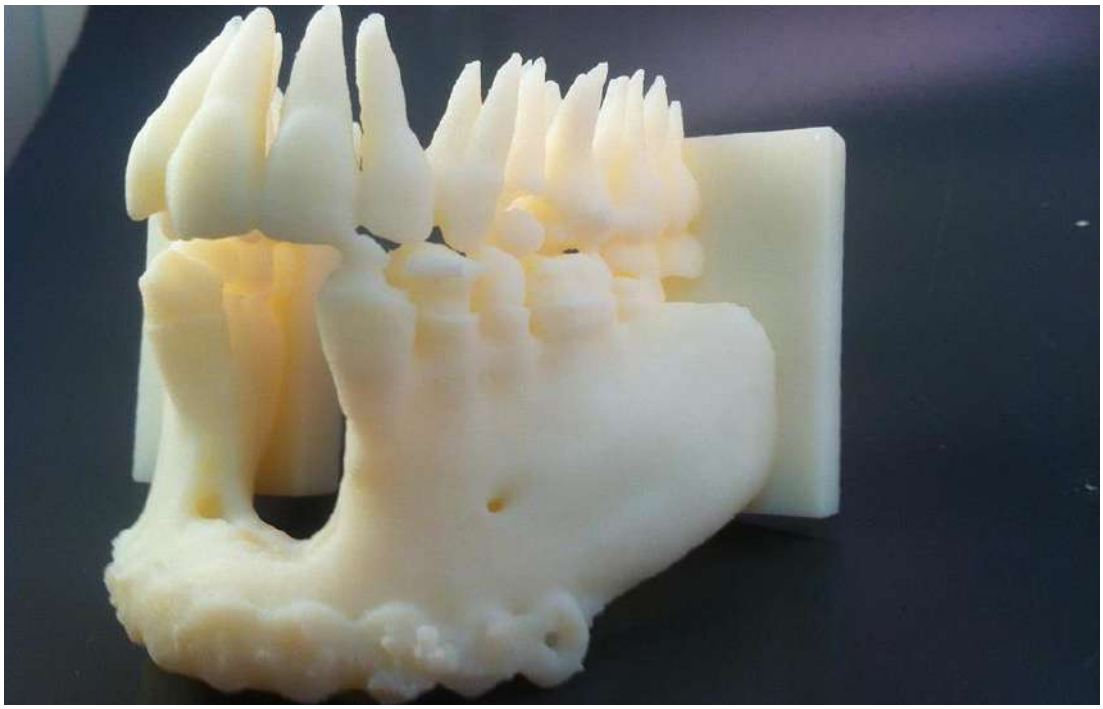
ABSTRACT

" Bio-fabrication can be defined as the production of complex living and non-living biological products from raw materials such as living cells, molecules, extracellular matrices, and biomaterials "-*Mironov et* al., 2015.

Bio-printing is an extension of traditional 3D printing. It produces living tissue, bone, blood vessels and, potentially, whole organs for use in medical procedures, training and testing. It provides the opportunity to generate patient-specific tissue for the development of accurate, targeted and completely personalized treatments.

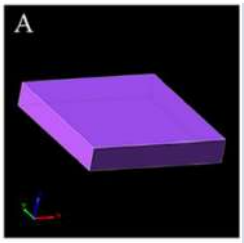
Supervisor:

Prof. Dr. Naglaa El-Wakeel

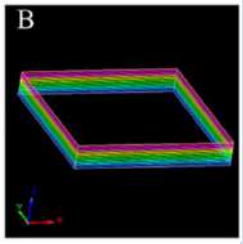


Stratasys 3D printed mandible model showing details that a surgeon cannot see with CT scan

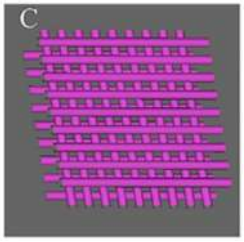
Bio-pen : modification of Bio-printing



A: Regular geometry of the printed tissue construct.

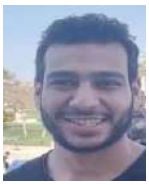


B: Blueprint recognizable by 3D Bio-plotter.



C: Diagram of the inner grid structure of 3D printed tissue construct

The application of new technology in periodontal field "Augmented Reality"



Mohamed Atef
152829

Mai Khalid
150067

Merna Maher
150805

Randa Hassan
150661

Radwa Kamal
152953

Abdulelah Ali
061342

Abdullatef Mohamed
145309

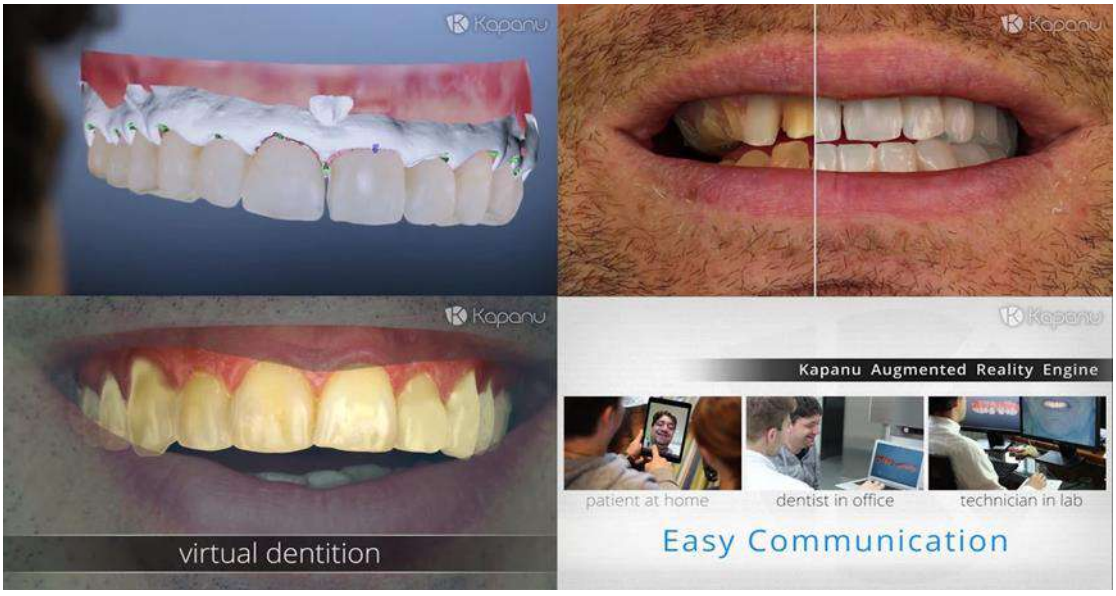
Mustafa Mohammed
150181

ABSTRACT

Augmented Reality:

Augmented reality is the technology that expands our physical world, adding layers of digital information onto it. Unlike Virtual Reality (VR), Augmented Reality (AR) does not create the whole artificial environments to replace real with a virtual one. AR appears in direct view of an existing environment and adds sounds, videos, and graphics to it. In dentistry, oral and maxillofacial surgery is the primary area of use, where dental implant placement and orthognathic surgery are the most frequent applications. Recent technological advancements are enabling new applications of restorative dentistry, orthodontics and endodontics.

Supervisor:
Prof. Dr. Naglaa El-Wakeel


Kapanu
virtual dentition
Kapanu Augmented Reality Engine
patient at home
dentist in office
technician in lab
Easy Communication

Clinical Evaluation of the Marginal Integrity, and Internal Fit of E-Max Endo-crown Restorations with Different Marginal Preparation Designs. Ex-Vivo

Inas A. Elalem
Master thesis MSA

ABSTRACT

Purpose: The aim of this study was to evaluate clinically the marginal integrity, and internal fit of endodontically treated molar teeth restored with endo-crown restorations with two different preparation designs. Results: The marginal gaps of both groups were within the clinical acceptable range, but group 1 (73.49±5.29µm) was statistically significantly higher than group 2 (59.81±3.42µm), meanwhile there was no significant difference regarding the internal fit of both groups as group 1(83.05±11.72 µm) had slightly higher mean value than group 2 (80.29±10.59 µm). Conclusion: Endo-crown restorations with different preparation designs showed a clinical acceptable range of marginal and internal fit.

Supervisor:
Prof.Dr. Rabab M. Ibraheem,
Prof.Dr. Ahmed M. Hamdy

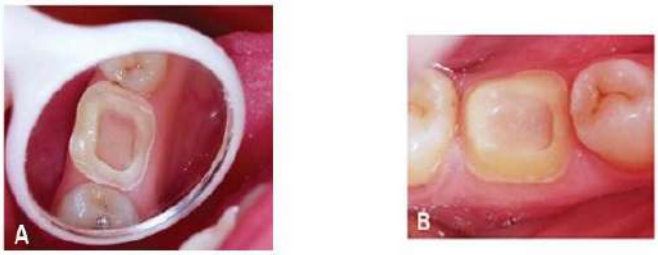


Figure 2: A; Butt joint preparations with sealed canal orifices with flowable composite of tooth # 30
B; Circumferential preparation with deep chamfer finish line and sealed canal orifices with flowable composite of tooth # 30

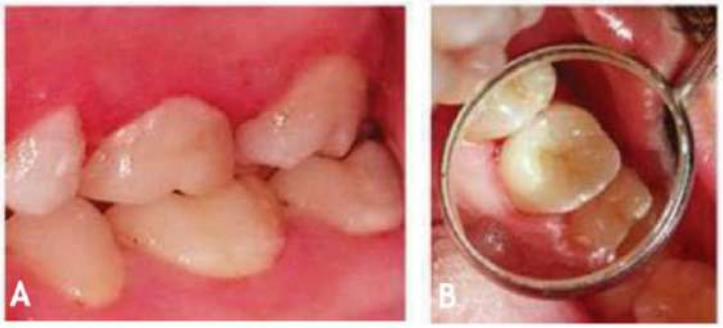


Figure 3: Post-operative endocrown restoration cemented on tooth # 14
A: Buccal view, B: Occlusal view of endocrown restoration cemented on tooth # 14

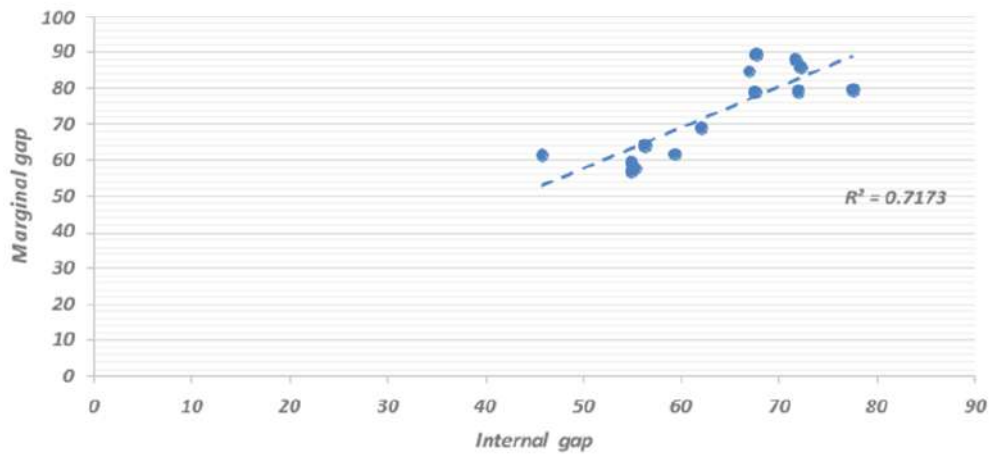


Figure (4) A linear chart of correlation between total marginal gap and internal gap

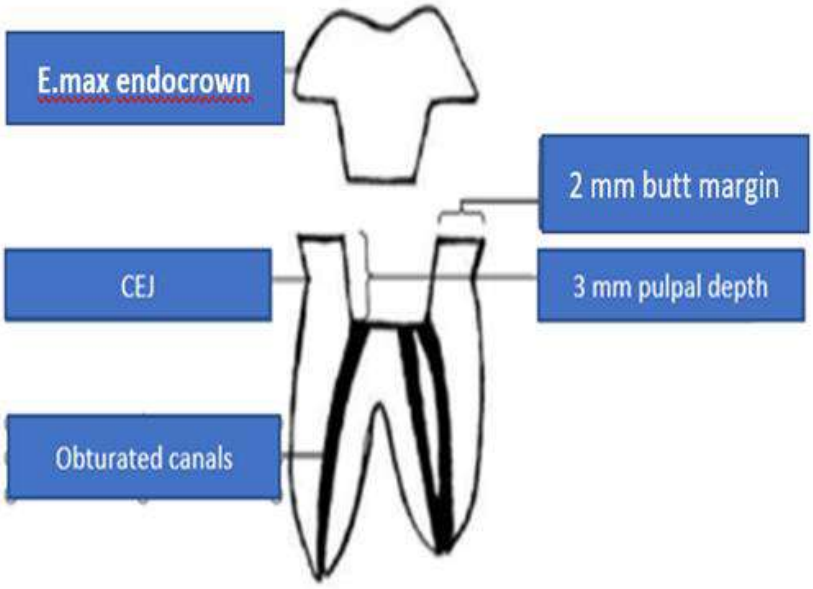
Assessment of Fracture Resistance of Endocrown Compared to Conventional Crown Retained with Fiber Post and Composite Core: In Vitro Study)

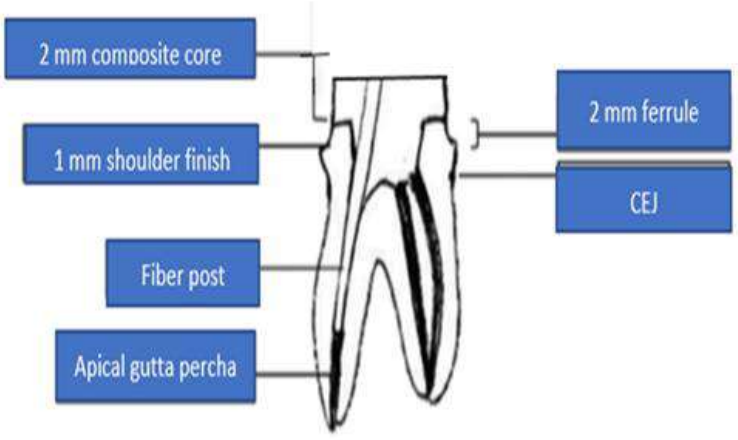
Abdallah Abusweireh
Master thesis MSA

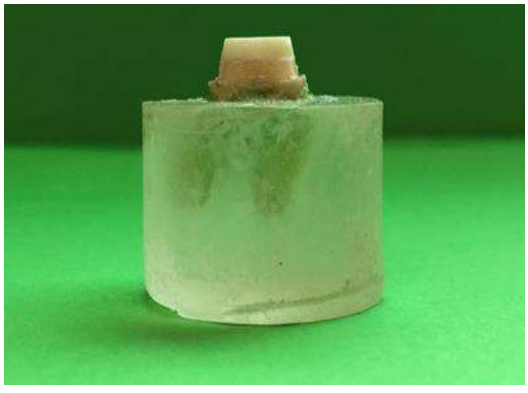
ABSTRACT

This in-vitro study was designed to compare the fracture resistance of endo-crown restoration to the conventional crown retained with fiber post and composite core. Conclusion: Endocrown and conventional crown retained with fiber post and composite core perform similarly under load. Endo-crown restoration can be a feasible restoration in badly decayed endodontically treated posterior teeth where a circumferential ferrule can't be achieved. Both Endo-crown and conventional crown retained with fiber post and composite core can withstand the clinical masticatory forces in molar area.

Supervisor:
Prof. Dr, Rabab M. Ibraheem,
Prof.Dr. Ahmed M. Hamdy


E.max endocrown
2 mm butt margin
CEJ
3 mm pulpal depth
Obturated canals


2 mm composite core
2 mm ferrule
1 mm shoulder finish
CEJ
Fiber post
Apical gutta percha



Assessment of the Cyclic Fatigue Of Inlays/Onlays and fiber-post retained crowns constructed from Lithium Disilicate on an Endodontically treated teeth

Amr Ismaeil
Master thesis MSA

ABSTRACT

This in-vitro study evaluated the fracture resistance of endodontically treated teeth restored with inlays, onlays and fiber post retained crowns. All restorations were fabricated from lithium disilicate (E-max). Twenty one freshly extracted caries free mandibular molars of similar dimensions that followed the inclusion criteria were collected. All samples were digitally scanned using (MyCrown, Fona) digital scanner and twenty one lithium dislocate restorations were constructed as inlays, onlays and conventional crowns. The failure modes were evaluated using digital microscope at 35X magnification. The results were collected and statistically analyzed.

Supervisor:
Prof. Rabab M. Ibraheem
Prof. Ahmed M. Hamdy

Figure 10: Measuring the Bucco-lingual width of unprepared molar.

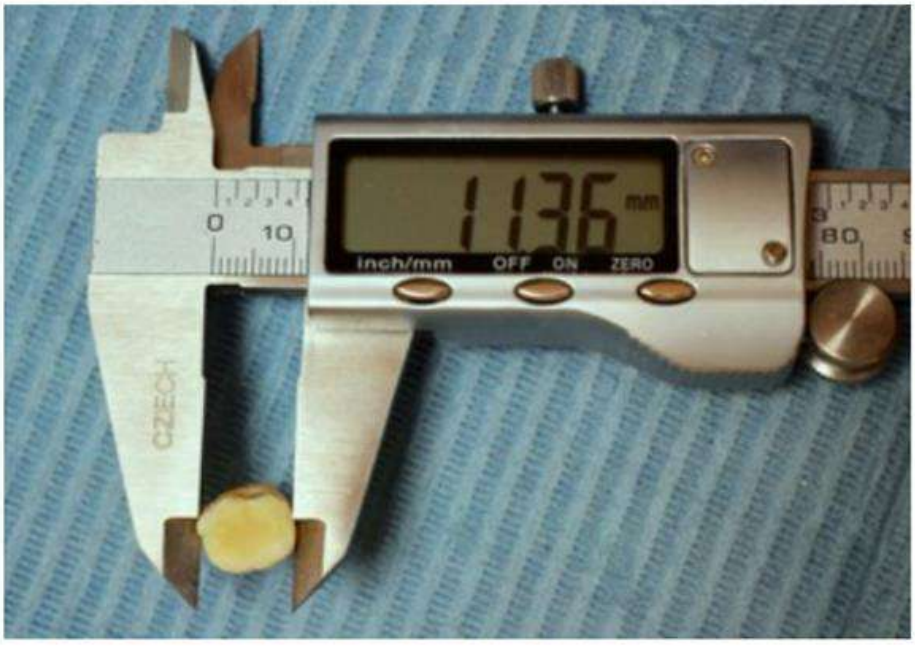


Figure 11: Measuring the mesio-distal width of unprepared molar.

FACULTY OF

ENGINEERING

Esna Culture Venue

Abdelrahman Hemida
150719

PROJECT DESCRIPTION

In the heart of historical city, Isna. Where civilization, are replaced by Handcrafts workshops and shops Because of there is no suitable places for this and also the lack of awareness of the importance of the region or the city. The mission is to design a project that replies for the main community needs which are mentioned previously without ignoring the history, identity and culture of the region.

Nubian Agriculture & Technological Research Center

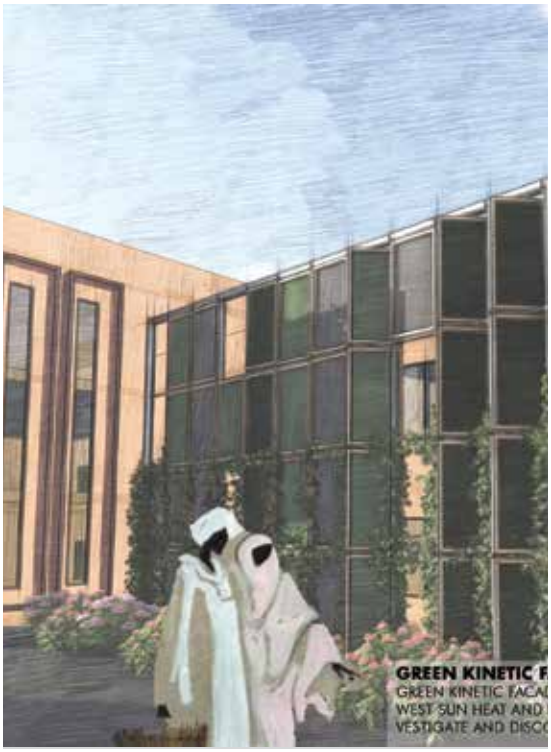
Ahmed
Hamdy
151673

PROJECT DESCRIPTION

The essence of the project design not just a research centre, it is a Nubian dream to explore and renovate the power of the Nubian agriculture land, history and tradition.

Through education and research NATRC is the perfect way for the Nubian community development, the project is in perfect tune with integration with the local community it lies through its entrances and public plazas that explains their history and Tradition through an open air exhibition.


PROJECT MAIN ELEV
THE USE OF LOCAL MATE
BREAKERS TO CREATE A D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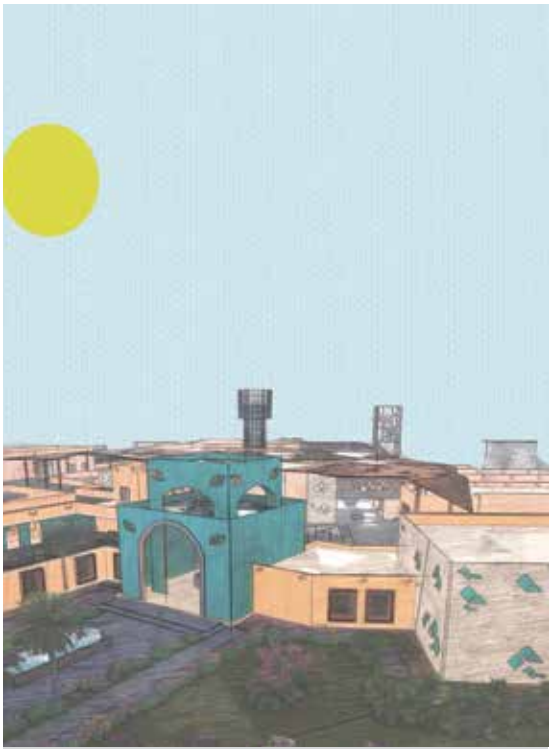


Luxor Festival Center

Ahmed
Nagi
155461

PROJECT DESCRIPTION

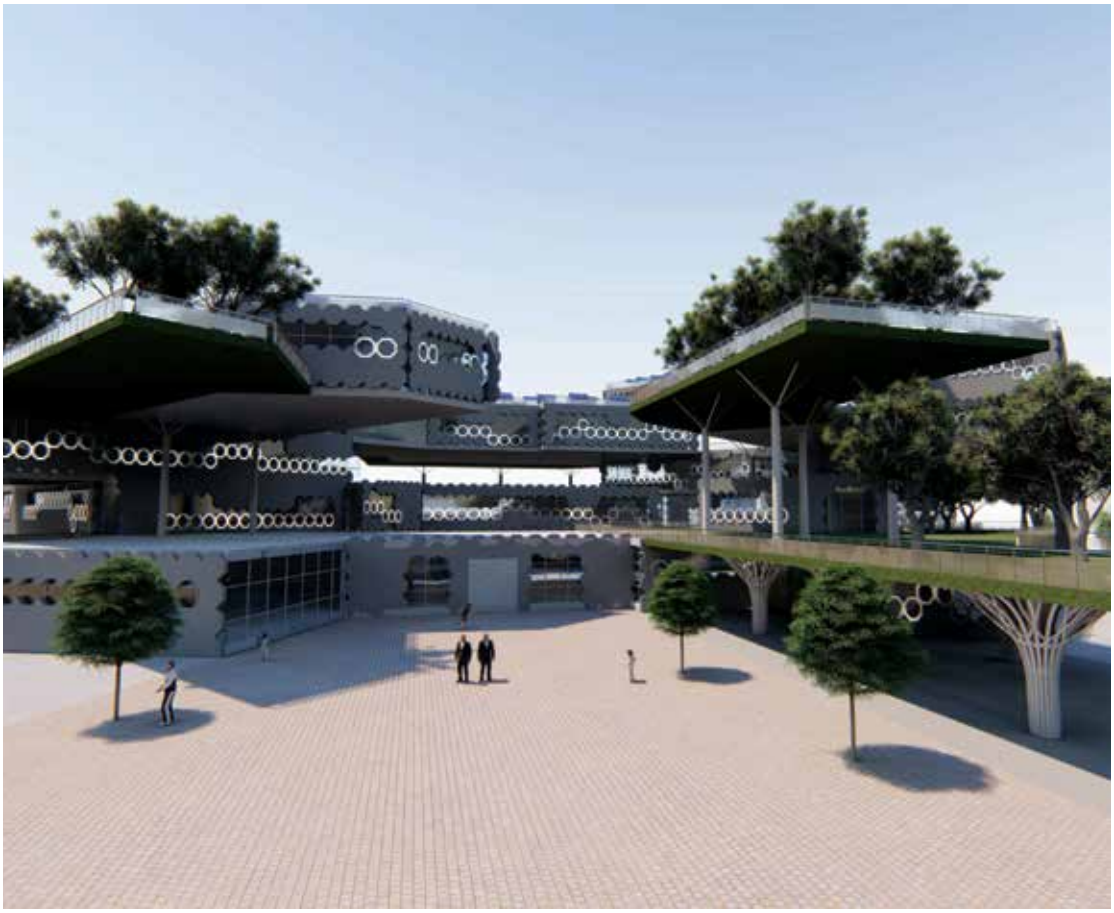
This project is mainly applied to serve the locals and the tourists where it helps developing the tourism in Egypt using several activities as conferences, ceremonies, festivals and various events. Developing these activities with the aid of cinema halls where people interact with the nature of this piece of heritage site as the architectural studies and angle of vision is highly chosen and applied to give people the access to see the touristic icons over Luxor and enjoy the heritage all around.in addition, the availability of a huge ramp that we can call the Luxor's eye for how it helps everyone using this project to extend their sights while also enjoying the different activities on this ramp itself.

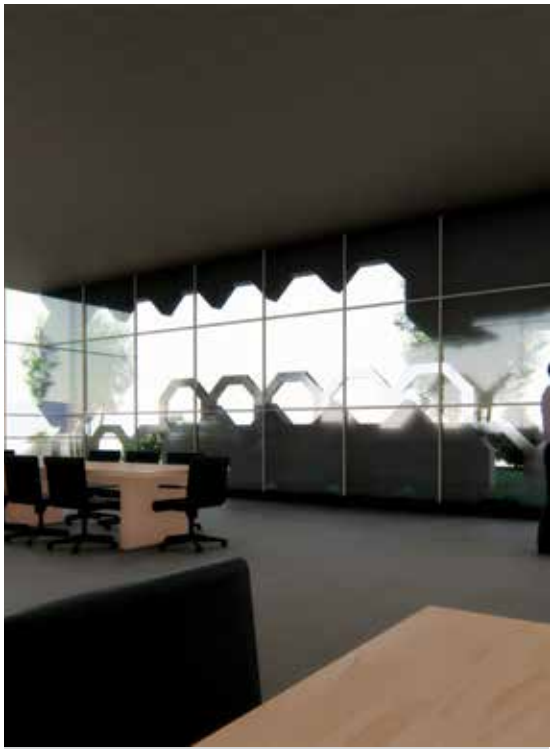
Nubian Agriculture & Technological Research Center

Amr
Allam
151973

PROJECT DESCRIPTION

The Nubian Agriculture & Technological research center (otherwise known as NATRC) is a project designed to help the Nubian after their migration from homeland to Kom Umbu. NATRC mainly focuses on improving agriculture in Nubia with advanced research in the fields of Genetics, geology, and engineering.





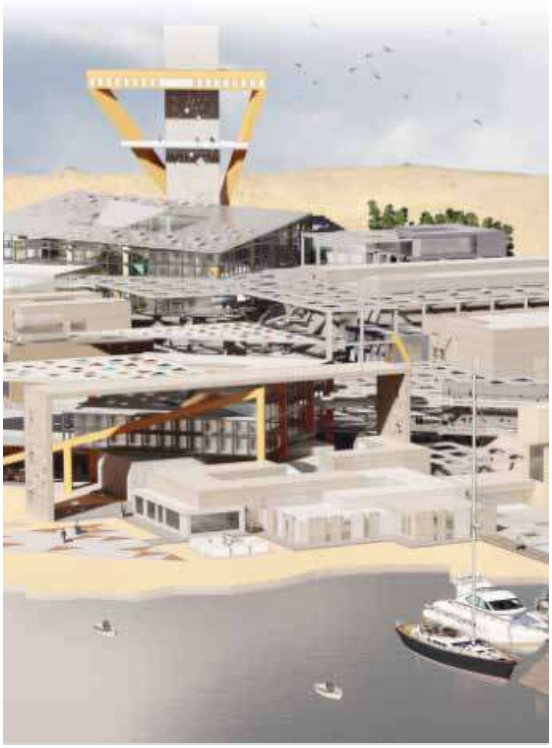
Engineering: Architecture Department

Aswan Exhibition Center

Mohamed
Khaled Bedir
150441

PROJECT DESCRIPTION

The icon of the exhibition inspire for the future that elevates from the past and capture new fields of realization projection it into the future, that considered with exhibiting and displaying the reached achievements and discovered mysterious of skills seen in the exhibition building. Another layer of the exhibition can be seen in the usage of Egypt's nature, it is reflected on the usage of the Nile as the stream of the life and the nature topography along the internal spine, the last layer is represented in the network of shade that reflects the interconnectedness of the center.



Nubian Agriculture & Technological Research Center

Mohamed
Mahmoud Hassan
155109

PROJECT DESCRIPTION

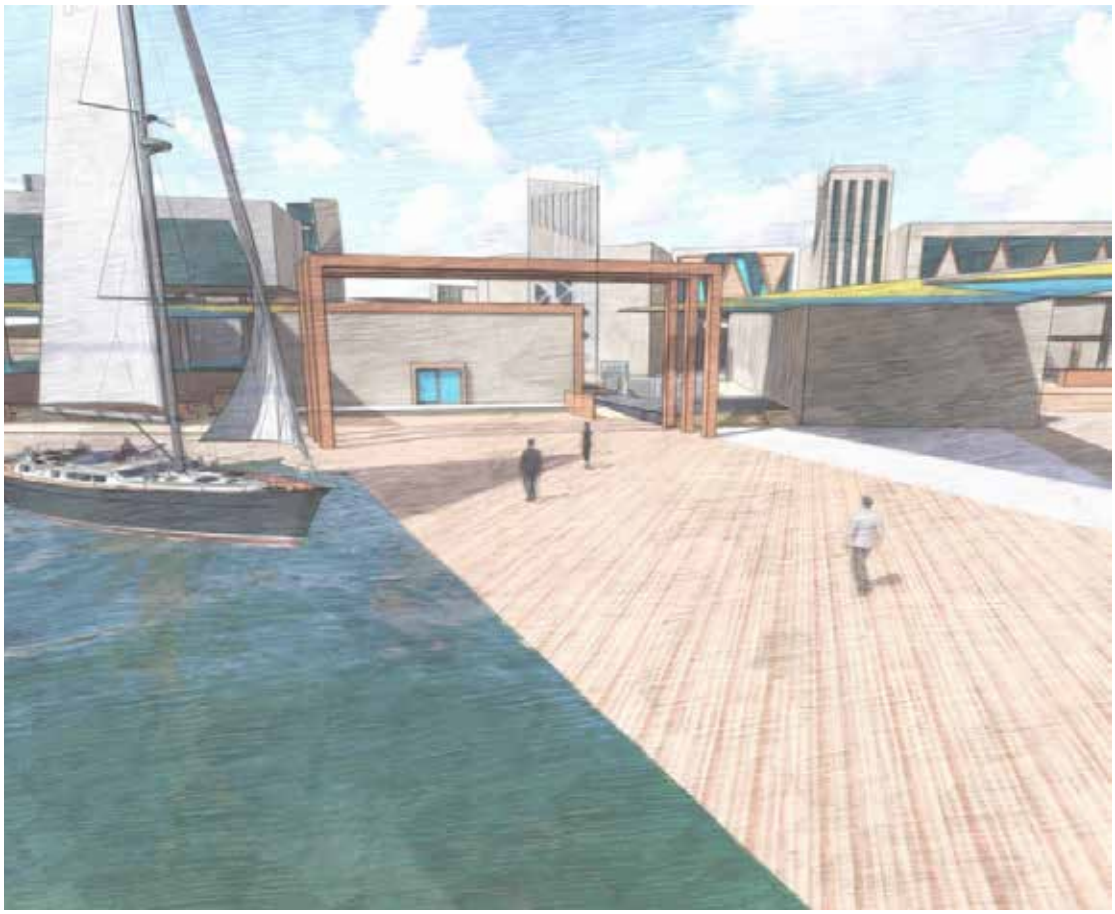
The Nubian Agriculture & Technological research center (otherwise known as NATRC) is a project designed to help the Nubian after their migration from homeland to Kom Umbu. NATRC mainly focuses on improving agriculture in Nubia with advanced research in the fields of Genetics, geology, and engineering.

Aswan Exhibition Center

Omar
Hamed
150759

PROJECT DESCRIPTION

The project is about reviving the heritage of Aswan, how to raise the knowledge of people about Aswan's history and help visitors to use their five senses in each place in the project to enjoy their tour and never forget this experience , so in some parts of the project we make them to live the experience through touching handicrafts materials, taste and sniff Nubian spices or listen to Nubian music, then we achieve the experience through exhibition.

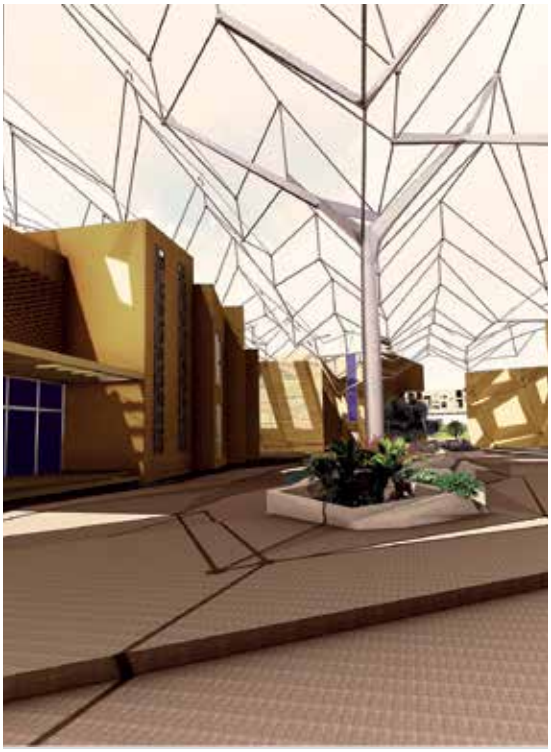


Nubian Agriculture & Technological Research Center

Yara
Mohamed
155357

PROJECT DESCRIPTION

NATRC, the Nubian agricultural and technological research center, it is a research center that solves the Nubian biggest immigr tion problem which is agriculture using both science and technology. NATRC provides all what a research need; labs, workshops, offices, green houses, open green areas; that will help him to develop and improve the agriculture in both plants genetics and botany and agricultural engineering. In addition, it provides green open spaces that provides relaxing, educating and communicating environment for the researchers.



Bio-medical Device for Blood Glucose Measurement using Non-invasive Technology

Mustafa Hassaan Muhammed
151043

Abdalla Radwan Saad
152309

ABSTRACT

The quantity of individuals affected by diabetes is rapidly expanding around the world because of the expansion of middle age in the populace and lifestyle that doesn't include any activity for the body. The quantity is possible to be exceeded in 2030 to 500 million cases, bringing out the most socio-health crises of the 3rd millennium. Monitoring blood glucose concentration levels daily is an advantageous thing to avoid a problem in health. The devices available in the market have many side effects as they use an invasive method in measuring glucose concentration level. Over the last few years, the level of blood glucose is self-monitored using a glucose meter that works with an invasive way. Invasive method of testing blood glucose concentration causes a risk of skin infection, physical and psychological pain due to pricking the finger at least three times. Currently, there are some devices that monitor glucose concentration levels continuously and they are called continuous glucose monitoring (CGM) devices. CGM devices working by placing a sensor on the body by a needle stick. Nowadays, there are a lot of researches about a new technology which will be used in measuring blood glucose concentration with a non-invasive way to dispose the side effects of the available devices in the market.

The purpose of this project is to provide a non- invasive technique for measuring blood glucose concentration level to replace the available devices in the Egyptian market. A signal called "photoplethysmography (PPG)" is used in estimating blood glucose concentration level. PPG signal is obtained using near-infrared spectroscopy which contains near-Infrared (NIR) LED and Indium Galium Arsenide (InGaAs) photodiode of peak wavelength 1550nm. Regression analysis will be used to obtain a regression equation that is going to predict the glucose concentration level using a dataset that contains invasive blood glucose measurements and the corresponding analog voltage for a certain number of diabetic individuals.

Compact Microwave Phase Shifter based on Metamaterials

Mahmoud Mohsen Egela
152407

ABSTRACT

In this thesis, a compact metamaterial phase shifter is designed, implemented, simulated and measured. The composite right/left-handed unit cells will improve the compactness for the configuration. The composite right/left handed (CRLH) metamaterial (MTM) has extraordinary phase characteristics. Positive, negative, and zero phase speeds can be achieved by these characteristics. The compact phase shifter can be achieved using these characteristics. Loaded line phase shifter type is selected among other types of the phase shifters as it can have a broad range of phase shifts. The Loaded line phase shifter is a quarter-wavelength transmission line with shunt reactance at each end. The compactness of the proposed phase shifter will be achieved by using a simplified composite right/left-handed transmission line (S-CRLH-TL) as the loaded structure of the loaded line phase shifter. A compact metamaterial phase shifter is designed to be used with reconfigurable phased array antenna systems.

The proposed phase shifter provides a constant phase shift of 8° between the main line and the reference line. MTM transmission lines are recently used while designing passive microwave devices. This method is a good choice for achieving the compactness of the designed device. This method also has a simple fabrication process. The phase shifter was measured to have a bandwidth about 82% (2.9 GHz to 7 GHz) for a maximum phase deviation of 3.3°. The proposed phase shifter achieves (7.6° ± 3.3°). The proposed phase shifter has a compact size of 13.5 mm × 9 mm.

Compressive Arrays for Direction of Arrival Estimation

Youssef Tarek Aly
151463

Amr Mohamed Adel
151881

ABSTRACT

Direction of Arrival has been one of the most active fields for the past decades, due to the increase of its usage in many fields in communication and networks, studies and research have been conducted to utilize its hardware complexity. Some compressive techniques were used to help in the desired outcome for the Directional of Arrival (DoA), namely the Compressive sensing (CS) technique. This paper proposes a CS based DoA using the Antenna array under the name of Compressive Arrays for Direction of Arrival Estimation.

Electrical Engineering Integrated Portable Device

Karim Samer Mostafa
150621

Omar Mohamed Ahmed
151449

ABSTRACT

In engineering field, especially for engineering students, electronic instruments such as digital multimeter, oscilloscope and function generator are essential for data analysis and acquisition. But these instruments are very expensive and bulky in size so many students cannot afford them easily for their educational purpose. So the objectives of the proposed system is to implement an isolated pocket sized device combining the mentioned three device in one device to be easily affordable for each student. These objectives could happen through the proposed system, as the electrical engineering integrated portable device consists of a portable low cost hardware device interacted with a software application. The hardware device mainly consists of three parts, the first Part is for the digital multimeter which includes a current sensor, voltage divider circuit and resistance measuring circuit .The aim of this part is to measure current, voltage and resistance. Second part is for the oscilloscope that consists of signal conditioning unit to filter the signal. Finally the third part which is relevant to the function generator contains digital signal processing unit and the amplifier circuit. Moreover the project consists of microcontroller that acts as the brain of the system where each part in the system is connected to it to manage the whole system. Also the system provides a user friendly application through the smart phones to facilitate its operation for the users and to display the results through it which is connected wirelessly with the hardware device. The system takes their operating voltage through an USB power inlet.

Real-Time Waste Vehicle Monitor, Tracking and Control System

Khaled Tamer Khairy
152205

Mohamed Salah Salem Aldargaly
154303

ABSTRACT

The proposed system aims to help mainly the waste transportation companies to overcome the barriers that they face, such as a weak monitoring system for the vehicles routes, lack of safety standards and lack of information about the vehicle load. From this problem definition, some main Objectives were concluded for the proposed system. First is to provide a monitoring system with real time response for the vehicle, second is to provide an efficient system for informing the company with accurate data about the load and the vehicle, and third is to provide necessary precautions to minimize the waste loss while being transported. When these objectives are met this will result in reaching the minimum number of random dumpsites, supplying the user data about the load, analyzing the performance of the workers and cars. The proposed system consists of two main subsystems the tracking sub-system which is based on GSM and GPS, and the safety sub-system, that consists of some implemented sensors to inform the users about the load safety and the data is sent by the GSM to the Website, which is the presentation interface.

The proposed system contributed by providing a flexible billing method for the clients according to their usage by the weight sensor, supplying information about the amount of waste collected and dumped in its certain places daily , Providing necessary precautions to minimize the waste loss by implementing an ultrasonic sensor and tension sensor which will result in checking the net state after passing a certain level to prevent waste loss, and to decrease the amount of hazardous environment factors by implementing a heat sensor, poisonous sensor, and smoke sensor to prevent any harm that would happen to the load and the environment.

Smart Glove with Gestures Recognition Ability

Muhammed Ossama Muhammed
141853

ABSTRACT

In such system the main component used is the flex sensors and due to the high price of those sensors, We found an alternative component that can do the same function giving us the same output quality but the cost has been reduced to more than the half of that component. This new component is velostat. The output will be a heard voice sent a mobile notification in contrary to the previous solutions. We have faced problem in designing the PCB especially in connecting the tracks beside that we were looking in the market for the components. We intended to use a certain microcontroller but there was a shortage of some of the needed component like this microcontroller so we have changed it to atmega 32P and the battery as well we have changed the battery to Nokia Bl-5J Lithium Ion instead of Lithium polymer battery. The system worked to help the disable people to communicate with the world with gestures.

Smart Mug

Amira Osama Abd El Moneim
150827

Mostafa Ahmed Hafez Ibrahim
151515

ABSTRACT

Being hydrated considered is an important thing for the human body. According to statistics, the adult human body needs liquids consequently especially water at least by 60% to regenerate its cells, regulate its temperature, and improve its productivity. Drinking impure liquids that include a high percentage of dissolved solids and the habitat of drinking after long time intervals lead to the dehydration phenomenon. This phenomenon causes dangerous diseases to the human body such as kidney failure, heart failure, nervous central damage, and weakens the immune system of the human body. The proposed system came to help people to avoid dehydration by tracking their body hydration level by calculating the volume of liquids needed per day, and a reminding system for drinking within specific time intervals. Reminding will be through both the mug and mobile application in order to make sure that the user does not forget to drink. Also, the user will know if the liquid in the mug is valid to drink or not by using the TDS measurement circuit.

Some data of the user such as height, weight, age, and gender will be stored in the mobile application and used to set a suitable daily target for each user. Also, there are extra features like finding my mug feature to prevent losing or forgetting the mug in order to keep the user hydrated.

Wireless Home Automation Using Internet of Things

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ABSTRACT

In the shed of great growth in the field of Internet of Things (IOT) and the field of smart home, interconnection between them is need so smart automation homes are invented. In this project we going to apply these technologies as Home Automation System (HAS) and IOT by using wireless smart sensors in a wireless sensor network (WSN) using Wireless Fidelity (Wi-Fi). Applying concept of internetworking of smart devices, A Wi-Fi based automation home is designed to monitor and control devices, make home safer place. One of the objectives is to control consumption of energy which costs a lot and can be implemented on any home to convert it to smart one. This smart home consists of microcontroller, Wi-Fi module and sensors.

Smart IOT irrigation for customized soil

Ayman Said Waly
ID: 155073

Gamal Al-Din Ayman
ID: 153871

ABSTRACT

Irrigation uses about 70% of available freshwater resources, large amount of water that uses in irrigation is wasted because the weakness in efficiency water management. In this project smart IOT irrigation system is aimed to optimize the efficiency of water management. the system predict the weekly irrigation schedule that needed to plant through the soil measurements like soil moisture and climatic variables like temperature and humidity, all of this measurements collect from the sensors that deployed in the field. These measurements will use to predict weekly irrigation schedule through machine learning techniques and use this schedule to make the control in the irrigation water is automatic based on microcontroller that connected to actuator. Our system is validated on wheat. Performance is tested through compare between system results and agronomists recommendations.

Intelligent Urban Transport Tracking & Management System

Bishoy Maher
ID: 154783

Muhammad Abd El-Hady
ID: 165065

ABSTRACT

Egypt's current bus system is large enough to satisfy a significant portion of the population's demand, yet fails to do so due to mismanaged resources. Static lines and unclear schedules create a confusing and unappealing user experience which pushes more of the population to cars for their transportation needs. This clearly leads to more congested streets which result in a net loss of productivity as well as an increase in stress, unnecessary fuel consumption, and harmful emissions. An intelligent bus solution is multi-faceted. It consists of (1) connected buses which are capable of providing their geo-location data, feedback about driving behaviour, and health data to detect failures before they occur; (2) cash-less payment through RFID cards to ensure much tighter control over pricing; (3) a processing server or cloud, in which all of the incoming data would be handled; (4) knowledge systems which dynamically optimize bus schedules and routes through learning algorithms.

A mobile application to capture demand and inform passengers of bus arrival times. The main functions and algorithms of the proposed system are achieved based on machine learning algorithms and web technologies, whilst the hardware component is implemented based on System-on-Chip technology with custom hardware to interface with the vehicle. It is shown that by applying the proposed system to a previously static bus system that fuel consumption, maintenance costs, and carbon emissions can be reduced by 10-20% while overall passenger satisfaction can be increased.

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Smart IoT Plant Diseases Detection System

Ahmed Nassar

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Khaled Ehab

ID: 153483

ABSTRACT

The Internet of Things (IoT) technology is presently shaping completely different aspects of human life. Precision agriculture is one of the applications which may use the IoT technology to optimize the production efficiency, optimize the standard of the crops, and minimize the negative environmental impact like plant diseases. Plant diseases are generally one of the most important problems that threaten the world's agricultural, causing large losses in agricultural production of about 25% per year. The proposed system is consisting of two main features proactive and reactive, the proactive part is based on the data collected from the sensors at plant environment, forecasting weather data from weather stations, and historical data. The reactive action is based on the image processing technique which to monitoring the field if there are any early symptoms appears on the leaf of the wheat to help the system to be more accurate and the right reactive act.

Smart Traffic Management System via Connected Vehicles

Ahmed Nabil Saad
ID: 151213

Mahmoud Gamal Saad
ID: 151495

ABSTRACT

The traffic jam is a major problem all-over the world because of accidents and congestions in the rush hours throughout the day, and the waste of money and time is really priceless, also the pollution caused by traffic congestions is destroying the environment. Following-up the vision of the smart city there is a need to an adaptive, fully-autonomous traffic management system to tackle the traffic and mange it accordingly to achieve the real-time decision, minimize the trip time as possible, and save lives by prioritizing the vehicles to emergency and normal vehicles, and reduce the pollution of the vehicles and it's harm to the environment, and cost less compared to the other systems, and these are the main objectives that our proposed system is going to tackle, and the main features compared by other systems and projects.

This is going to be accomplished by using Dedicated Short-Range Communication protocol (DSRC) between the vehicle and the traffic light and vice versa, and the intelligent traffic light will take decision in real time and adapt the situation and re-route by using Machine Learning algorithms. By applying the proposed system, the wasted time and money in fuels can be reduced, and also lives is going to be saved.

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SMART Autonomous and Connected Vehicle

Taha Ahmed

ID: 155511

Mohamed Gamal
ID: 150833

ABSTRACT

Commuting is an exhausting activity. Not only does it consume time and energy, it also, due to the long time it takes, makes distraction an easy and inevitable action. Moving your eyes from the road may cause accidents that have a large negative impact on the drive, his/her car and the surroundings. To tackle these problem, multiple car manufacturer introduced a variety of technologies that assist the driver, these technologies include CCS, CWS and multiple other techniques that ensures the driver safety. Research papers has presented the idea of autonomous vehicle, each proposing a different take on how a car precept the environment around it using a range of sensors and act upon these data. Our Research paper review these different techniques proposed by multiple already established papers, go through the different technologies car manufacturers use in their cars to detect obstacles and actions taken to avoid them.

IMAGE HERE

IMAGE HERE

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Investigation of Slurry Erosion Behavior of Glass Fiber Polymer Reinforced Composites

Ahmed Atef Hassan
150637

Ahmed Nagi Radwan
152313

ABSTRACT

Investigation of erosion behaviour of fiber reinforced composite (GRPs) materials is a significant research problem. Erosion wear is a major cause of failure of mechanical components especially in pipelines applications, such as the oil and gas industry, water transportation, industrial drainage, etc. The present work is undertaken to study the development, characterization and erosion wear performance of polyester resin reinforced with E-glass woven fiber. Focus will be on glass fiber reinforcements as the major type of fiber materials due to cost efficiency and high mechanical properties. In order to perform the desired study, first a detailed literature review was performed to investigate the different types of resins, reinforcement fibers, erosion test machines, and test conditions available for FRPs. Full design calculations, manufacturing steps and CAD drawing of the tester were performed to ensure the required functionality of tests Slurry erosion testing was chosen as the most relevant type of study for the above-mentioned applications.. Erosion test was performed on the samples at different impact velocity of 10,13,16,18,20 m/sec. Erosion test was performed in each parameter with repetition factor equals 4.

Design and Manufacturing of Controlled Waste Segregation Machine

Ahmed hassan Abdelmoniem - 150549

Philopateer Nabil Zaki Salama -153067

IMAGE HERE

IMAGE HERE

ABSTRACT

Solid waste management has become one of the main issues in cities all over the world. Therefore, it is necessary to develop the means of sorting-out the content of domestic waste for reusing or recycling based on the type of waste material. Keeping in mind that under the condition of climate change and environmental effects,it is necessary required to recycle the waste, since mixing is rubbish while classifying is resource. The objectives of this project are to design and manufacture a small scale waste segregation machine to be used in the MSA university campus. Waste bins in the university campus were investigated and it was found that they include dry and clean waste and these are classified as rich waste to be segregated and then recycled, these rich wastes are paper, cans, glass and little ferrous pieces. The proposed design of an efficient machine will include mechanisms for picking different types of waste. Containing a hopper with a plate to control waste inlet. A blowing chamber to separate light waste from heavy waste. An overhead magnet to separate the ferrous metals from the rest of waste and a magnet fitted in the last end pulley to separate escaped ferrous metals from the rest of waste.

Evaluation and Improvement of Sustainability in an Irrigation Pipes Plant

Abdallah Medhat
152507

Mohanad Mohamed
155843

ABSTRACT

In this project, the aim is to form a measuring model of sustainability in manufacturing enterprises which can be reliable for evaluating the performance of the enterprise. The focus of the research to reach this model was on social and environmental sustainability as firms usually direct more concern towards economic aspect of the sustainability. The proposed assessment framework was used to evaluate sustainability in a plastic irrigation pipes plant. It was found that the plant needs improvements in several aspects; first was filtration of water used in plastic washing tanks to reduce waste of water and improve environmental sustainability. Secondly, social sustainability can be improved through adding a safety shutdown mechanism for plastic shredding machine and proposing a ventilation system for plastic recycling department in addition to placing posters for work-related health and safety. The third aspect is related to economic sustainability regarding enterprise productivity which can be improved through upgrading perforator and insertion machines that formed bottlenecks for the production line. Finally, sustainability is re-evaluated in the selected enterprise to observe the changes created by the implemented solutions.

Enhancement of Economic Sustainability in Modern Irrigation Systems Factory

Zyad Ashraf mohamed
155429

Mohamed El Sayed 150709

ABSTRACT

This thesis provides an assessment framework for measuring sustainability in manufacturing enterprises through developing indicators that can be utilize to quantify their achievements in sustainability. The proposed model is applied in modern irrigation system firm to evaluate its sustainability index and identify areas of improvement. There are three main issues that needed improvement to raise the level of sustainability in the firm. The first issue is increasing the material utilization by 6% through implementing six sigma methodology to reduce wall thickness variation of irrigation pipes. The second issue is increasing the time utilization by 80% through implementing Single Minute Exchange of Die (SMED) technique to reduce nonvalue-added time during changeover of extrusion die. The third issue is raising the power efficiency by 40% through upgrading the Mica band heaters with Infrared heaters. Finally, revaluating the sustainability index of the firm and comparing it with old one for monitoring the level of sustainability along time to ensure the continuous improvement.

Smart Mug

Amira Osama Abd El Moneim
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ABSTRACT

Being hydrated considered is an important thing for the human body. According to statistics, the adult human body needs liquids consequently especially water at least by 60% to regenerate its cells, regulate its temperature, and improve its productivity. Drinking impure liquids that include a high percentage of dissolved solids and the habitat of drinking after long time intervals lead to the dehydration phenomenon. This phenomenon causes dangerous diseases to the human body such as kidney failure, heart failure, nervous central damage, and weakens the immune system of the human body. The proposed system came to help people to avoid dehydration by tracking their body hydration level by calculating the volume of liquids needed per day, and a reminding system for drinking within specific time intervals. Reminding will be through both the mug and mobile application in order to make sure that the user does not forget to drink. Also, the user will know if the liquid in the mug is valid to drink or not by using the TDS measurement circuit.

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FACULTY OF

LANGUAGES

A Pattern For Female PTSD: The Unauthorized Memory in Victor Fleming's Cinematic Adaptation of *Gone with the Wind* and Vera Brittain's *Testament of Youth*

Hiba Youssef Bushiha

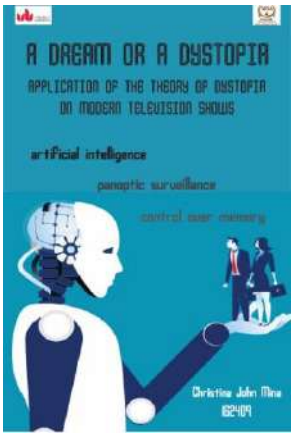
ABSTRACT

The narrative of post-war trauma is often focused on the experiences of the average white male, while females are often silenced and denied authority to speak about their own war trauma. The researcher aims to assert this fact by examining the quadri-phasic development of war related Post-Traumatic Stress Disorder exhibited by Scarlett O'Hara in Victor Fleming's 1939 cinematic adaptation of Gone with the Wind and Vera Brittain in her own 1933 memoir Testament of Youth. Using William Niederland's theory of Survivor Syndrome along with numerous literatures on Post-Traumatic Stress Disorder, the researcher examines the two female characters in the stages of Pre-trauma, Peri-trauma, Post-trauma and Growth. The findings indicate that a positive pre-traumatic life increases women's chances of developing Post-Traumatic Stress Disorder, and that women's tendency to dissociate when exposed to trauma is further the root cause of the disorder as both female characters re-experience the feelings of shock and fear that have been dissociated during the traumatic event. The researcher further concludes that women with Post Traumatic Stress Disorder may exhibit an inability to feel and form healthy relationships and that the only means of post-traumatic growth is the establishment of meaningful relationships and connections after resolving and letting go of the past.

تهتم دراسات اضطراب ما بعد الصدمة في سياق الحروب بتجارب الرجال المجاربين بينما النساء لا يسمح لهن بالتعبير عن تجاربهن المؤلمة . لذا يهدف هذا البحث هو إلى اضاحة هذه الحقائق من خلال دراسة التطور الرباعي لاضطراب ما بعد الصدمة في شخصية سكارليت أوهارا في فيلم ذهب مع *الريح* *Gone With The Wind* (1939) إخراج فيكتور فليمينج و شخصية فيرا بريتن في مذكراتها *شهادة على الصبا* *Testament of Youth* (1933).

A Dream or A Dystopia: Application of The Theory of Dystopia On Modern Television Shows

Christina John Mina



ABSTRACT

Realizing that the future may not always hold what people usually expect has driven a lot of writers into considering the future as a doomed dystopia. A dystopia is a corrupted post-apocalyptic world that is undesirable and frightening, considering the history of human kind, such a description does not seem far from the reality inflicted by wars and destructive technology. This study aims to compare between episodes from the series Black Mirror and episodes from the animated sitcom The Jetsons in order to figure out the hidden subliminal dystopian atmosphere in The Jetsons and analyze the dystopia of Black Mirror. It also verifies the notion that despite the negativity shown in the episodes it is mostly the negative outlook of the writers themselves and not necessarily based on facts, as they are sometimes influenced by the works of previous content creators that portrayed a similar depressing image. The dissertation attempts a comparative analysis of dystopia in futuristic worlds through the selected television series in question, to understand the minds of the scriptwriters and their predictions on the misuse of coming advanced technology. The findings and the conclusion of the study point at the fact that there is still hope for a better future because although many previous authors believed the future would be horrible it still did not turn out as bad or as messed up as they had expected.

هذه الدراسة تهدف الى المقارنة بين حلقات من مسلسل "بلاك ميرور- المراة السوداء" للكبار وحلقات اخرة من مسلسل الرسوم المتحركة "الجيتسونس" للصغار للكشف عن حالة الواقع المظلم (الديستوبيا) المخبئة في عالم "الجيتسونس" مع تحليل (الديستوبيا) الخاصة بمسلسل "بلاك ميرور".

Life Beyond Death in Children Literature: An Eco-critical Exploration in Cultural-Portrayal of Death in Children

Shrook Youssef
151173

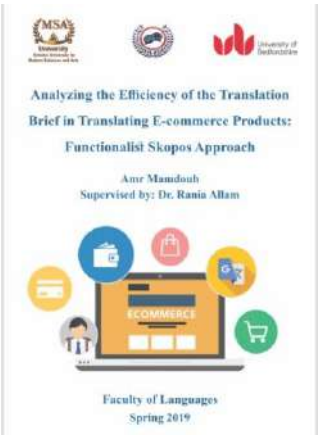
ABSTRACT

Questioning how the reality of death should be delivered to children has been a controversial issue between parents and accordingly children works content creators. The dissertation explores the portrayal of life after death in different children literary works through an eco-critical perspective. A comparison between the variations of cultural attitudes is tackled through the different literary interpretations of death, with main question of whether children literature makes the concept of death easier to perceive by children and to what extent. The Greek culture of death shall be tackled through the Greek myth of Hercules in *The Story of Hercules* and the Disney movie *Hercules*to further understand whether the movie is better at reflecting the eco-critical aspect of death through the use of animals and imagery. The Disney movie *Coco*in comparison is tackled to view the positive portrayal of death in the Mexican culture through the positive surrounding and colorful animal, and finally the Disney movie of *Mulan*and the Disney story of*Mushu's Story* which shows that despite the fact that Chinese culture does not have a positive attitude of death, the Disney production still found a way to create a pet out of the dead world whom is loveable and funny. The findings of the dissertation illustrates that the children literary works do indeed make death a more simple and less traumatic fact for children through the eco-critical elements used by the authors.

تتناول الرسالة تمثيل الحياة ما بعد الموت في بعض الاعمال الادبية المخصصة للاطفال من خلال نظرية النقد البيئي. أعمال أدب الأطفال مستوحاة من حضارات معينة مثل الأساطير اليونانية والحضارة المكسيكية والحضارة الصينية. وتعقد الدراسة مقارنة بين أعمال أدبية مختلفة وأفلام رسوم متحركة مقتبسة من هذه الأعمال، لطرح السؤال الأساسي ألا وهو؛ هل يجعل أدب الأطفال فكرة الموت أبسط للأطفال؟ وبأي درجة؟

Analyzing the Efficiency of the Translation Brief in Translating E-Commerce Websites: A Functionalist Skopos Approach

Amr Mamdouh Shehata



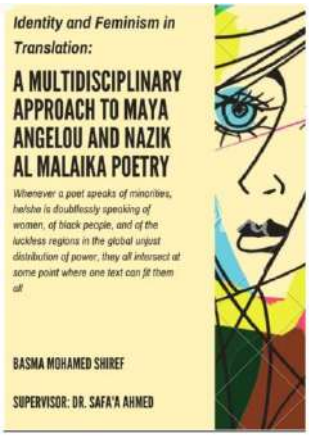
ABSTRACT

This study aims to investigate the effect of the translation brief on the quality of translation by translation major students. The problem is that previous studies showed that in the real practice of translation, many translation task providers (agencies, clients) do not provide the translators with a brief to guide them and ensure the purpose of the translation is clear. Accordingly, this situation represents an obstacle for translators in general and translation students in particular who are on their way to the translation market. This paper adapts translation-oriented model of text analysis by Christiane Nord (1991), to analyze source texts on an e-commerce website, to establish the purpose of this translation, and therefore adapting it in a brief. This type of translation (e-commerce translation) is chosen because it is one of the main types that a new translator in the market will find available. Further, a sample of translation major students are chosen to perform two translation tasks, first without a brief and then with one, to examine the effect of the brief on the quality of translation and achieving its purpose. The present researcher hypothesis that when translating with a brief the performance will improve, which is proven by the results of the tasks, as their percentage of achieving the purpose improved by 100%.

يستخدم هذا البحث نموذج تحليل النص لكريستيان نورد (1991)، لتحليل نصوص الترجمة على أحد مواقع التجارة الإلكترونية، لتحديد الغرض من هذه الترجمة، وبالتالي استنباط تعليمات وإرشادات هذه الترجمة. تم اختيار هذا النوع من الترجمة (ترجمة المواقع الإلكترونية) لأنه أحد الأنواع الرئيسية التي سيجدها المترجم الجديد متوفرة في سوق العمل.

Identity and Feminism in Translation: A Multidisciplinary Approach to Maya Angelou and Nazik Al Malaika Poetry

Basma M. A. Shiref



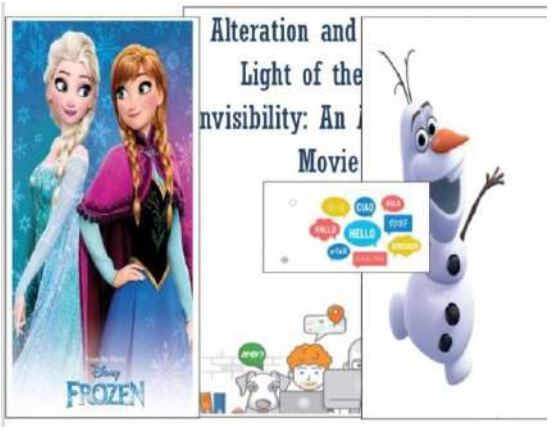
ABSTRACT

Feminism and identity are controversial concepts where they can meet and diverse at different points within poetry compared to its translation. The role of feminism in asserting one's individual identity or even collective identity represents a problematic area of study in translation. Sociocultural approaches in translation studies vary in their techniques of translating different texts in the light of their interrelations with identity and feminism. The present study aims at exploring the relationship between identity and feminism in the original productions of Maya Angelou and Nazik Al Malaika's selected poems and their translations using a multidisciplinary approach that combines between post colonial and gender based studies. The theoretical framework of this study is based on Sherry Simon (2005) and Gayatri Spivak (2004) theories of translation in relation to identity and feminism. This paper is a qualitative theoretical research that uses content analysis and comparisons as research tools. It concluded that the analysis and discussion of data have proved that identity and feminism are inseparable due to their absolute and essential connectedness that is emphasized by the fact that each concept of them completes and confirms the other. As a recommendation, translation should reflect the intersection of identity and feminism instead of their diversities in order to assert the writer's point of view.

تهدف هذه الدراسة إلى استكشاف العلاقة بين الهوية والنسوية في الاعمال الاصلية لمايا انجيلو ونازك الملائكة وخاصة القصائد المختارة في هذا البحث مع ترجماتها باستخدام نهج متعدد الدراسات والذي يجمع بين دراسات ما بعد الاستعمار والدراسات المبنية على أساس النوع. يعتمد الإطار النظري في هذه الدراسة على نظريتي شيري سايمون (2005) وجاياتري سبيفاك (2004) للترجمة فيما يتعلق بالهوية والنسوية

Alteration and Addition in the Light of the Translator's Invisibility: An Application to the Movie Frozen

Mariam A. A. Soltan



ABSTRACT

When translating a text from one culture to another, there exists the problem of the different linguistic and cultural aspects between the two cultures. The literal translation of texts from the source culture may lead to incomprehensibility in the target text. This paper aims to investigate the translation strategies of addition and alteration in the movie Frozen using Venuti's theory of the translator's invisibility. The translation of the movie Frozen from English into Arabic will be investigated using this theory and these strategies. This is a qualitative and quantitative research utilizing content analysis, comparison, and quantitative data as research tools. A comparison between the original text Frozen and its target text will be incorporated to show instances of alteration and addition as strategies to attain the concept of the invisibility of the translator. The research concludes that alteration and addition are necessary to achieve comprehensibility and acceptability in translation, and to bring the text closer to the target text receivers' culture.

يهدف هذا البحث إلى استكشاف استراتيجيات ترجمة الإضافة والتعديل المستخدمة في ترجمة الفيلم "فروزن" من الانجليزية الى العربية وربط هذه الاستراتيجيات بنظرية فينوتي وهي اختفاء المترجم. سيتم البحث في ترجمة الفيلم "فروزن" عن طريق استخدام هذه النظرية وهذه الاستراتيجيات. هذا بحث نوعي وكمي يستخدم تحليل المحتوى والمقارنة والبيانات الكمية كأدوات بحثية.

Investigating University Level Instructors' Perceptions of an Integrated Technology-Aided Approach to Teaching Literature

Karina Gamil

ABSTRACT

This study aimed at investigating the perceptions of university level instructors on the use of an integrated technology-aided approach to teach literature to students that take English as a foreign language (EFL). To achieve this aim, a random sample of eleven university level literature instructors working at MSA was chosen to investigate their perceptions on an integrated technology-aided approach. The researcher further designed a structured interview, which was assessed for its validity and reliability, and conducted it with the selected sample. The study findings revealed that the instructors preferred not only traditional technological aids such as videos, audios, and eBooks but also more innovative ones such as digital storytelling, hypertexts, digital mapping and blogs. Moreover, an overall positive response regarding the applicability of an integrated technology-aided approach was observed. In addition, several key challenges regarding the implementation of such an approach were pointed out, including the unavailability of necessary equipment, the time constraints, and the lack of training in the use of technology for both the students and the instructors.

هدفت الدراسة إلى استقصاء رؤي و تصورات اساتذة الادب الإنجليزي في المرحلة الجامعية حول إمكانية تطبيق مدخل تكاملي مقترح بالإستعانة بالتكنولوجيا أثناء تدريس مقررات الأدب لطلابهم.

Analyzing Egyptian EFL Secondary Stage Learners' Grammatical Errors in Writing

Fatma ElZahraa Hussein

ABSTRACT

This study aimed at finding the most common grammatical errors committed by Egyptian EFL learners in writing. In order to achieve the aim of the current study, a random sample of thirty Egyptian EFL secondary stage students was selected from Dar El Taryba School. A writing diagnostic test adopted from Cambridge English preliminary teachers' handbook and Euro exams B1 webset was used as the tool for the current study. The test consisted of three questions, and the study participants were required to answer all the questions of the test. The study results indicated that more than 90% of the study participants committed grammatical errors in their writing related to wrong tenses, incorrect subject-verb-agreement while 60% of the students committed grammatical errors in their writing related to the wrong use of comparative and superlative forms. Based on the study findings, the hypothesis was partially confirmed and partially refuted. According to the study results, it is suggested that EFL teachers should integrate the writing classes with the grammar classes in order to help EFL learners overcome such grammatical errors in their writing.

هدفت هذه الدراسة إلى تحليل الاخطاء النحوية التي يرتكبها طلاب المرحلة الثانوية اثناء الكتابة باللغة الإنجليزية كلغة أجنبية. و لتحقيق هدف الدراسة تكونت العينة من ثلاثين طالبا بمدرسة دار التربية بمحافظة الجيزة و تم عقد اختبار كتابة تشخيصي لهم لتحديد وتحليل الأخطاء النحوية التي يرتكبونها .

Comparing University Level EFL Students' and Instructors' Perceptions of Online Courses Quality and Effectiveness

Sara M. Kamal

ABSTRACT

This study aimed at finding out the perceptions of university level EFL students and instructors concerning online courses quality and effectiveness. To achieve this aim, a random sample of thirty EFL university level students was selected from three different faculties at MSA University. Also, a random sample of fifteen instructors from three different levels of English courses was selected to conduct the current study. The researcher designed a questionnaire and a structured interview, and they were used as the research tools after ensuring their reliability and validity. The questionnaire consisted of five questions while the interview consisted of six questions. The study participants were asked to answers the questions according to their perceptions. The findings of the study revealed that both the study hypotheses were partially confirmed and partially refuted. The majority of EFL university level instructors and students who participated in the current study believed that online EFL courses are effective and of reasonable quality. Based on the study results, it is recommended to conduct experimental studies to investigate the effectiveness of varied online courses. In addition, more training should be provided for instructors who teach online courses to better meet the individual needs of their EFL students.

هدفت هذه الدراسة إلي مقارنة رؤي و تصورات اساتذة و طلاب اللغة الإنجليزية كلغة اجنبية حول مدى جودة و فعالية مقررات اللغة الإنجليزية المقدمة على شبكة الانترنت و أظهرت نتائج الدراسة أن معظم أفراد العينة – سواء أساتذة أو طلاب- يرون أن مقررات اللغة الإنجليزية المقدمة على شبكة الإنترنت فعالة و تتمتع بمستوى مقبول من الفعالية. و بناء على نتائج الدراسة الحالية توصي الباحثة بتدريب معلمي اللغة الإنجليزية كلغة أجنبية الذين يدرسون مثل هذه المقررات الإلكترونية علي تلبية الاحتياجات التعليمية المتباينة لدى الطلاب.

The Misleading Implementation for Entrepreneurial Ecosystem in Egypt

Dina Hassan Elsherbiny

ABSTRACT

This research is mainly tackling the presence and the role of the entrepreneurial ecosystem through the Egyptian economy and the entrepreneurship in Egypt. The main target is to identify the determine the effect of the entrepreneurship on the economic growth in Egypt and how it affect it. This hypothesis was examined through two Methods to measure the real-life situation for the startups in Egypt. The methods worked on collecting the real thoughts and actions toward the concept to give an accurate analysis on the consequences that might happen due to the incorrect way of applying and controlling the entrepreneurship process in Egypt. Therefore, this gives a credit and enhances the role of the entrepreneurial ecosystem and how it assures the success of the entrepreneurship and subsequently Egypt will have an economic growth.

يتناول هذا البحث بشكل اساسي وجود ودور النظام البيئى المحيط لريادة الاعمال من خلال الاقتصاد المصري وريادة الأعمال في مصر. الهدف الرئيسي هو تحديد مدى تأثير ريادة الأعمال على النمو الاقتصادي في مصر وكيف تؤثر عليه. تم فحص هذه الفرضية من خلال طريقتين لقياس واقع الحياة للشركات الناشئة في مصر. الأساليب المتبعة في جمع الأفكار والإجراءات الحقيقية نحو المفهوم لإعطاء تحليل دقيق للعواقب التي قد تحدث بسبب الطريقة غير الصحيحة لتطبيق ومراقبة عملية ريادة الأعمال في مصر. لذلك ، يمنح هذا الأمر الفضل ويعزز دور البيئة المحيطة لريادة الأعمال وكيف يضمن نجاح ريادة الأعمال وبالتالي ستحقق مصر نمواً اقتصادياً.

The Effect of Sales Persons on Customers' Decision Making in Egypt

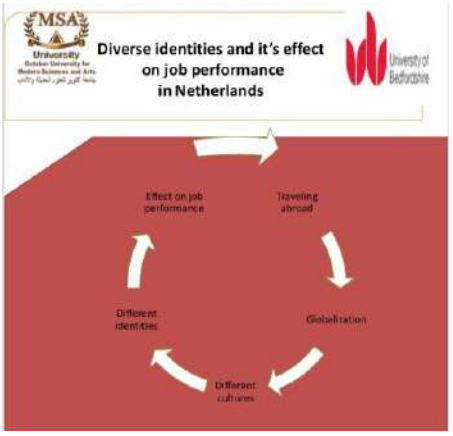
Ayatullah M. Riad

ABSTRACT

Due to the vital importance of the behavior of consumers and their purchase decisions as well as the impact of those on the profitability of any organization, the attention of everyone in this field had been directed towards this topic. Good marketing depends on a comprehensive knowledge and understanding of the behavior of consumers. The subject of consumer purchase decision is of great concern because people in Egypt and everywhere make buying decisions every day. Thus, several aspects in this area need to be studied in order for consumers to buy the products that match their styles of living. Furthermore, other aspects need to be considered by marketers, salespeople, and organizations in order to understand how to compete with other brands as well as which customers to target. This dissertation aims to investigate the important factors that affect the consumers' decision making as well identifying the role of the salespeople and their great influence on the decision making of consumers in Egypt. The research design is based upon a descriptive study between the effect of salespeople on the consumer decision making. The findings prove that salespeople negatively affect the Egyptian consumers. According to the conducted online survey on consumers, the researcher provided that the Human Resources managers in Egypt who play the role of the selection in any company should focus their scopes on hiring salespeople with the attributes of sincerity, honesty, not pressuring consumers, asking clarifying questions, presenting accurate information as well as approaching the consumers when needed.

International labor pool and the effect of diverse identities on job performance: An Application on "KLM Royal Flights in Netherlands"

Allaa A. M. Ibrahim



ABSTRACT

The aim of this research paper is to measure the identity of people who traveled to Netherlands and also to measure the effect of diverse identities in the work place on job performance of the workers. The researcher chose this topic because of how important is identity as it shows the person's culture, language and traditions. Therefore, diverse of identities and how it effects on job performance. Two surveys were filled in Netherlands to measure the identity and the second was to measure the effect of diverse identities in the workplace on job performance. The methodology used was surveys to measure the identity and also to measure the diverse of identities and how that effect on job performance. The questions of the first survey were seven questions and were asked to measure the identity. The survey was filled by foreigners in Netherlands. Moreover, the second survey was two questions to measure how diverse identities effect on job performance and the survey was filled by workers in KLM Royal Flights in Netherlands. People who filled the surveys were not supervised because it was in another country. The results were that most of the people who filled the first survey their identity did not change. And the effect of diverse identities on job performance was mixed not all positive and also not all negative. Therefore, international labor pool and changing of Identities are not all the same results.

FACULTY OF

MASS COMMUNICATION

The Pink Support

Nourhan Reda

Supervisor:
Dr. Affaf Tobbala
Teaching Assistant:
Loay Fahmy

ABSTRACT

A real life story of a cancer surviving mother and how the support of her peers and family has been a mastering factor in the process of her recovery.

مسافة السكة

Mai Mohamed

Supervisor:
Dr. Affaf Tobbala
Teaching Assistant:
Loay Fahmy

ABSTRACT

A movie that depicts the not – so – easy life of delivery persons, who despite what people think, actually face a lot of problems to be able to meet the needed performance level.

سور الأزبكية

Kareem Mohamed Farouk

Supervisor:
Dr. Noha Samir
Teaching Assistant:
Loay Fahmy

ABSTRACT

Would a time old market of paper books stand to survive the overwhelming competition of technology? That is the question raised by this documentary that features the current and future status of “Soor el Azbakeya”

St. Catherine

Nadime Askar

Supervisor:
Dr. Noha Samir
Teaching Assistant:
Loay Fahmy

ABSTRACT

A documentary that depicts the community and lifestyle of “St. Catherine”, going beyond the renowned mount. And touristic spots and focusing on the human aspect of this rich and historic place.

Lee Way

Majdouline EL Goubi

Supervisor:
Dr. Affaf Tobbala
Teaching Assistant:
Loay Fahmy

ABSTRACT

A story of will, featuring one's success despite being physically challenged, especially when this challenge is the loss of one of the vital senses.

قلعة النسور

Eman Magdy

Supervisor:
Dr. Affaf Tobbala
Teaching Assistant:
Loay Fahmy

ABSTRACT

An expose of the Air Force museum, and the various exhibits it features. Making it a live witness of the Egyptian history for grownups as much as for school students. Especially with all the workshops it offers.

Antoniadis: Forsaken Treasures

Mohamed Alaa

Supervisor:
Dr. Noha Samir
Teaching Assistant:
Loay Fahmy

ABSTRACT

The story of a palace that holds great history, yet is lost in the middle between all the entities responsible for it, leaving its beauty to survive the changes of time solely.

مجري والزمن بيجري

Fairouz Abd El Wahab

Supervisor:
Dr. Affaf Tobbala
Teaching Assistant:
Loay Fahmy

ABSTRACT

A documentary that traces the historic changes of “Magra El Oyon” aqueduct, from serving its original purpose reaching all the way to a display space of leather products. And moving on to its future restoration plan.

Gifted Hands

Marwa Shoukry

Supervisor:
Dr. Affaf Tobbala
Teaching Assistant:
Loay Fahmy

ABSTRACT

An expose of the “Dahab Island” palace, and the exquisite architectural style it stands to reflect, yet what is more fascinating is the man behind building it…

بـ **100** راجل

Logain Amr Azzam

Supervisor:
Dr. Affaf Tobbala
Teaching Assistant:
Loay Fahmy

ABSTRACT

A documentary that traces the lives of a group of women who have made it a point to excel in fields that have been labelled as “for men only”.

Effective Communication

Noha Amr Nawar

Supervisor:
Dr. Noha Samir
Teaching Assistant:
Loay Fahmy

ABSTRACT

A movie that depicts the simple communication errors that we fall in on a daily basis, through featuring everyday situations of real people who have suffered from simply not being able to understand where the problem is.

The Colour Green

Alyaa Adel Metwally

Supervisor:
Dr. Affaf Tobbala
Teaching Assistant:
Loay Fahmy

ABSTRACT

Shedding the spot on the simple yet fruitful steps some people took to make better use of their outdoor spaces by planting it… all the way from simple flower pots to large scale planting campaigns like “Shaggarha”.

Dual Nationality

Nelly Nashwa Nasser

Supervisor:
Dr. Noha Samir
Teaching Assistant:
Loay Fahmy

ABSTRACT

A dual nationality citizen of Egypt and Singapore who is requested to leave his home country; Egypt and travel for his army duties. The movie takes through the experience of dual nationality citizens with all the excitement and troubles it holds.

دمية لكل طفل

Malak Essam

Supervisor:
Dr. Noha Samir
Teaching Assistant:
Loay Fahmy

ABSTRACT

A movie that features the campaign “Doll for every Child” and the story of Haima, the kid of passed away leaving a legacy of simple acts of sharing and kindness that would sustain her memory for ever.

The Revival

Merna Sameh

Supervisor:
Dr. Affaf Tobbala
Teaching Assistant:
Loay Fahmy

ABSTRACT

How monuments are preserved and even more how they are repaired down to the finest details? This documentary takes us to the back-stage operations of the restoration department in the new Grand Cairo Museum.

البر التاني

Dahab Hatem

Supervisor:
Dr. Noha Samir
Teaching Assistant:
Loay Fahmy

ABSTRACT

A documentary that takes us on a trip into “Ezbet El Borg”; a self sufficient community, that lives on fishing. Featuring a life style where everyone serves a task, and all together create a model of cooperation for success.

عيون نبق

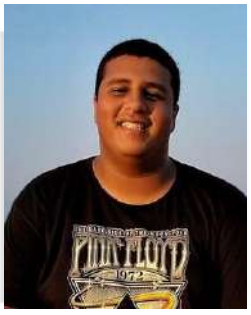
Yasmine Bastawisy

Supervisor:
Dr. Noha Samir
Teaching Assistant:
Loay Fahmy

ABSTRACT

From Cairo to Nabq of south Sinai, the movie takes the audience through the day to day life of Nabq girls. In a way the movie unfolds the mystery and predispositions people have about this area and its community, especially in the field of education.

Hocus Pocus



Youssef Amr Mohamed

Supervisor:
Dr. Noha Samir
Teaching Assistant :
Loay Fahmy

ABSTRACT

A docu-reconstruction movie that is inspired by the on going success of horror movies and mythical stories featured through the media. The movie emphasizes on the myths and superstitions that have and are still lingering in our society, or rather; coexist across the various civilizations and their history.

Dying to Live

Salma El Garhy

Supervisor:
Dr. Affaf Tobbala
Teaching Assistant:
Loay Fahmy

ABSTRACT

An investigative documentary, where the student has travelled to El Menya governorate quarries to depict the working condition of the workers and the life threats they face. Showing a daring angle the movie proposes the contrast of workers' acceptance of death in order to make a living.

الجنسية سكندري

Hana El Agamy

Supervisor:
Dr. Noha Samir
Teaching Assistant:
Loay Fahmy

ABSTRACT

Featuring the beautiful Alexandria through the eyes of poets, painters, and most of all through the eyes of expatriates who take pride in being an Alexandrian citizen

The Treasure

Moustafa Mahmoud

Supervisor:
Dr. Noha Samir
Teaching Assistant:
Loay Fahmy

ABSTRACT

Taking a trip back in time to the ancient Bibliotheca Alexandrina, and how it survived the challenge of time, only to prosper beyond being a historic library.

Sunken

Gehad Yehia Kadry

Mariam Soliman Nowar

Noura Mohamed

Supervisor:
Dr. Hala El Zahed
Teaching Assistant:
Raghda

ABSTRACT

A magazine tackling the underground scene and hidden talents that perhaps social media missed such as, e-sports, dawar app., Post-rock, female DJs, the so called extremely wicked, Omar Samra, Cairo foodie couple, skate impact, and exploring animation.

Awareness Campaign: Solar Energy as an Alternative Solution in Egypt's Future

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ABSTRACT

The concept of Solar Energy has been an existing phenomenon for centuries. It's ability to absorb sunlight and transform it into renewable energy that constantly provides enough electricity for various purposes is perceived, by some, as beneficial when compared to other sources of energy like the nonrenewable ones which, as Chowdhurry, Uddin, and Saleh (2014) point out, is prone to endangerment due to its limited & scarce quantity, which is why the creation of an awareness campaign, stressing on Solar Energy's importance, was of crucial necessity when it comes to conducting this research; which is as follows. For this project, the following campaign that'll be created, in purpose of raising awareness towards the importance & advantages of Solar Energy conversion, will be titled as "Solarise" which mainly combines, creatively, "Solar" as in 'Solar Energy; and "Rise" as in 'Sunrise' which basically implies that the renewable electricity discussed in the campaign is mainly generated by the power of sunlight. As for "Solarise" overall, this term was strategically manipulated as to imply the main initiative of the campaign, which is creating enough awareness & "solarizing" the entire Egyptian community whereas they all convert or switch to the usage of Solar Energy/Panels. For the campaign itself, it mainly revolves around tackling the importance regarding using Solar Energy as an attempt to convince prospect targets, being *Egyptian Males & Females (aged 20+; with an income of 10k LE)*, towards how it could play a beneficial role in one's life.

A Changing attitude campaign among C class in Egypt to help eliminate disrespectful behavior.

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ABSTRACT

Respect means taking into consideration someone‟s needs, their feelings, thoughts, and preferences, (Spears, Ellemers, Doosje, & Branscombe, 2006). Long ago in an earlier era, respect existed and was deliberately there among people where young individuals and children used to show great respect to the elder person, (Brännmark, 2017). Looking back in time at the culture of Ancient Egypt, morals and ethics existed as standards of conduct or behavior which were faithfully and profoundly followed by ancient Egyptians, (Karenga, 2003). However, recently, Egypt has witnessed many manifestations of "moral immorality" where Egyptians never heard of a father killing his children, a son who ends his father's or mother's life with drugs, a brother who kills his brother and a wife kills her husband with the help of her lover with the increase of harassment and rape crimes, (Ghotbi, 2015). The society struggles with high rates of theft, murder, parents' disobedience, the decline of the language of speech, the profanity of obscene words, and other manifestations that have brought morality down into the whirlwind of creative chaos, (Kandil, 2018). The topic of “respect for persons or others” is tremendously significant because it is often appealed as a vital aspect of ethics and morals which are the basis and crown of all nations. The reason behind selecting this topic in particular is that the phenomenon of moral decay is considered a very serious phenomenon, especially in recent years, and it is dangerous in a way that it casts a shadow on all individuals, the society and the state. It has become a major problem increasing every day along with the increase of media usage in improper means. Therefore, the campaign will focus on highlighting an assistance strategy in attempt to eliminate disrespectful behavior.

A Campaign to Educate Egyptian Parents in Becoming Lifelong Mentors to Their Children to Avoid Parental Abuse

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ABSTRACT

Currently, Egypt is passing through several problems, such as economic, political, and health problems. It is not impossible to fix what has been damaged, but the longer this damage lasts the more time and effort it needs to be repaired. Therefore, it is always more easy and less time consuming to fix the problem than to wait until it enlarges. Two characteristics needs to be found in any person in order to improve the society, which are discipline and education. It is always easier to change the negative and undesired behaviors of young age groups than to change the older age groups'. Then again, discipline and education needs to start from the home in order to be applied anywhere else. If the kids were not raised up knowing that, they must appreciate their parents and treat them with respect, then, they will never be able to respect their teachers, bosses, neighbors, friends, or any other individual. Moreover, if the parents do not find solutions for how to educate their children on behaving in a disciplined manner, then the kids will never put in to consideration the necessity of following the rules. Therefore, the researchers chose to educate the parents on different solutions, to how they can mentor their kids, in order to prevent any forms of parental abuse.

ABSTRACT

Thus, the researchers had to collect data from diverse sources, to gather as many information as possible in order to start creating the message of the campaign and select the target audience.

To do that, the researcher had to form primary and secondary sources. They distributed an online survey for parents to solve, and 88 of the participants answered it. Along with interviewing an expert in the field of psychology. As for the secondary research, the researchers gathered different information from academic sources about the issue and the background of it, to create and form the literature review. As a result, to all the references gathered, the researchers decided on targeting parents and educating them on solutions because the majority were already aware of the issue. An objective has been set, to support and guide the work of the researchers on the campaign through a specific time bounded plan.

Understanding impacts of climate change in Egypt by emphasizing on sustainable solutions for the upper and middle classes

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ABSTRACT

For the following campaign created in purpose of spreading awareness towards the
consequences of climate change titled as “understanding impacts of climate change in Egypt by emphasizing on sustainable solutions for the upper and middle classes” with the campaign’s objective to spread awareness and educate both the upper and middle classes of the impacts and consequences of climate change phenomenon since the phenomenon has been existing for many years, it’s an important subject that people around the world cannot stop discussing in which there are those who believe that humans should take steps in order to stop the impacts of climate change from happening and others who deny the idea even exists in which people think climate change is a hoax often pointing out the lack of evidence and proof that the climate has changed, therefore, this paper aims to discuss the information needed to understand climate change phenomenon and the importance of contributing to the cause through using renewable energies (e.g. solar energy) and with the above factors taken into consideration, the main objective of this campaign is to spread the awareness needed and educate the public about the existence of the phenomenon within the Egyptian society since most of them lack awareness and maintain a negative attitude towards the phenomenon as well as pushing them to believe their contribution would make a difference

ABSTRACT

for the environment in which the campaign will tackle the better alternatives and the easiest possible ways to contribute without making efforts or spending money, in addition to making them believe that relying on non-renewable resources (e.g. fossil fuels) is ineffective on the longterm as according to Energypedia (2018) non-renewable resources are more at risk of running-out as they are limited resources as well as leading to negative environmental outcomes such as; air pollution and the emissions of carbon dioxide (CO_2) into the earth's atmosphere unlike renewable

energies (e.g. hydroelectric energy) that provides endless supplies of energies (Chowdhury, Uddin, and Saleh, 2014). hence, this campaign as follows focuses more on reviewing the consequences that are related to climate change phenomenon and the main effects of climate change on the environment will be presented in this paper. Also, the campaign aims to present an overview of the trend of climate change issue from an environmental perspective since the main objective of this paper is to analyze the history of the gradual manifestation of climate change and state potential adaptations, therefore, the campaign basically aims to increase general public awareness as unfortunately in Egypt,

the public's negative attitudes towards the climate change phenomenon have increased drastically as they lack awareness of what climate change means and its effects and this kind of attitude is globally recognized as one of the main reasons as to why climate change dangers increases furthermore, it will further shed light on how climate change is perceived, therefore, developing an awareness campaign on climate change can lead to immense contributions in reducing climate change effects and adapt efficiently, this campaign also aims for behavioral changes without affecting people's everyday lives through presenting them other alternatives such as using renewable energies instead of non-renewable energies, therefore, the campaign is a mixture of consultation of; energy efficiency and sustainability measures that will increase the general level of awareness of the public, therefore the campaign addresses adults in order to aware, inform, and involve them in the provisional of adapting to climate change in order to achieve longterm behavioral changes and impact the environment.

A Social Marketing Campaign Among Egyptians Concerning Water Conservation Issues.

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Mai Ahmed Anwar Hussein
162547

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ABSTRACT

The United Nations reported that by 2025 Egypt is among 11 countries in the world whom are expected to face a severe water crisis. Water is known to be essential for every living being, that no one can survive life without water. The ultimate strategic objective of this campaign is to help protect and conserve Egypt's water.

Accordingly, qualitative and quantitative research were conducted to study Egyptian's behavior towards water consumption and if they are aware of such crisis. Three interviews were conducted within three different school principals; National, International and governmental schools in order to understand the behavior of students, knowing the best age to target and to gain more insights on each social class.

The outcome of these interviews was that students aren't concerned much about the issue, however, the school is trying to impose a new behavior to the students concerning water consumption. Moreover, the school principals agreed that the younger the better, so accordingly the target audience of the campaign was determined. Besides, a survey was conducted among a sample of 100 respondents representing A, B and C social classes. It was found that Egyptians are aware that water is not endless, however they aren't aware of the water crisis that is happening in six years from now.

ABSTRACT

They didn’t imagine that leakages, using hoses, throwing water infront of their working places, or leaving the water running while washing the dishes can waste water. Moreover, they claimed that they are willing to save water, however, the problem is that they don’t know how.

Therefore, a campaign is launched under the name of “Beat "- اتحدى ٢٠٢٥ 2025 ” " , in order to emphasize on the fact that the crisis is only six years from now and it is in 2025. The campaign’s main objective is to impose a new behavior among Egyptians regarding water conservation issues by 25% during June, July and August 2019; focusing on B and C social classes, age group from 13- 25 years and parents as well to follow up with their children. The concept of the campaign is developed based on insights from the Egyptian culture; as Egyptians we like to save things for our future, thinking that they are the most precious things, such as money, clothes, gold, however meanwhile we are forgetting to save the most valuable thing in life, which is water; it is actually taken for granted. Therefore, we came up with the line #Life-Time-Savings ---- #تحويشه العُمر . It is as well reflects the big unifying idea of the campaign, where the main concept behind any media execution will eventually fall under #تحويشه العُمر

Supporting Egyptians with Vitiligo Campaign

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ABSTRACT

Nowadays, people lack knowledge about several diseases in our society, one of the diseases is “Vitiligo”. Where the Egyptian people lack knowledge about the disease in terms of causes, consequences and treatments. Therefore, our campaign will aim to increase awareness about the disease in order to decrease the prejudice acts that Vitiligo patients witness in their life. Our primary research concluded that people in Egypt lack knowledge about Vitiligo; it is reflected in their attitude, where they are afraid to shake hands or to hold anything from their hands, as they think that the disease might be contagious. Our campaign clearly informed the target audience that Vitiligo is not contagious and they cause no harm to any, this is done through informative messages that had been delivered throughout our campaign’s executions. The informative messages helps in educating the target audience where accordingly, it would result in behavior change where this is our campaign’s goal.

Moreover, we used various integrated marketing communication tools that effectively reaches the target audience, in where they are located, the objective is to increase awareness among 40% of the youth and young mothers about the causes, consequences and the misperceptions towards Vitiligo patients from 1st of June till 30th of September through IMC activities.

Our campaign was entitled “Vitiligo”, as this is the disease’s name, as per our primary research, we concluded that people lack knowledge about the disease’s name, they know that the it is white patches that appears on the skin without knowing the name hence, the campaign was entitled by its name for further education. We hope to influence the youth and young mother in real life, through visualizing the journey of Vitiligo patients in real life which will be posted on social media and billboards. Where we aimed to change peoples’ perception towards Vitiligo and maintain an equal life for them.

IMC Awareness Campaign about the protection methods of Children's technology Addiction

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ABSTRACT

Similar to globalization and urbanization, the introduction of digitalization has substantially affected and altered the world today. The intensive proliferation of technology has become an irresistible dynamic, affecting virtually every aspect of the world, ranging from economies, societies and cultures as well as influencing the daily lives of individuals. Children are a not an exception as since the day a child is born, they are immersed in a continuous cycle of digital communication ranging from the manner their health care is managed until their photographs which are posted online on social media platforms to share memorable moments with friends and family. Hence, the more children develop in age; the capability of technology to influence their life will also develop. Moreover, the introduction of technological devices and virtual interaction correspondingly imposes evident dangers to the safety, confidentiality and overall welfare of children as well as increases the effects and harmful situations that the majority of children encounter offline and causes already existing susceptible youngsters to become more susceptible. Although information communication technology has eased the opportunity of distributing knowledge and collaborations with other people, it has also eased the opportunity to conduct and share sexual content and illegal material that harms and effects children negatively. Moreover, technology has increased the opportunity of child trafficking and triggered innovative ways in hiding such actions from the government and law.

ABSTRACT

Furthermore, technology has caused the process of obtaining unsuitable content to be much easier and more surprisingly has caused children to conduct improper content on their own. Also, technology has initiated a new medium for children to be bullied; however, now on a much wider scale and hence causes increased negative effects.

Furthermore, the online atmosphere and virtual entertainment applications have increased the creativity as well as the children's opportunity to reach fulfilling content; however, it has also implied the aspect of screen addiction as well as digital dependency. Moreover, these platforms have increased the chance for children to express themselves and thoughts in a free manner; on the other hand, has also increased the circulation of negative speech and ideas that can affect how children encounter and deal with the surrounding environment.Certain effects that arise from the concept of digitalization are not agreed upon by all the people; however due to the rapid expansion in the industry of technology and the increased threats that arise on children there should be increased efforts to maintain the protection of children from the disadvantages of a world that is more virtually connected. There should be increased efforts from governments, global organizations, societies, families as well as children to prevent or decrease the effects of technology.

The Prevalence of Bullying among Teenagers in Private Schools: Together against Bullying Campaign for Victim Empowerment in Egypt

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ABSTRACT

The purpose of this study is to develop a campaign against bullying. Many researches have been collected in the primary research that has included the causes and effects of bullying, types of bullying, and the reasons to why bystanders of bullying stay silent. In addition, several campaigns have been examined in order to determine the limitations of each and develop a campaign that defies every limitation.

The purpose of this campaign is to empower victims of bullying to speak up against any act of bullying they encounter. Basically, bullying is aggression, and aggression occurs under certain circumstances. It only occurs whenever there is an imbalance of power between two people. It happens when the person who acts aggressively is more powerful than the person they are inflicting their aggression upon. So here, there is an imbalance of power between the perpetrator of bullying and the bullied victim. The bully may be more powerful physically, verbally, or might be more socially skilled, which allows him to hurt others through any type of bullying. Therefore, the purpose of the campaign is to balance this power in order for bullying to stop and make victims aware that they are strong indeed and they can overcome bullying. This campaign is not only done with an academic perspective, but also with a humane point of view because there is hope that someday bullying will stop, or at least the rates would be minimal.

Awareness Campaign to Minimize the Negative Effects of Overpopulation in Egypt targeting C class

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ABSTRACT

Our campaign (Awareness campaign to minimize the negative effects of overpopulation in Egypt targeting C class) aims at changing the behavior rather than raising awareness of the C class category about the issue of overpopulation in Egypt in order to help in the development process. The campaign is mainly targeting Egyptian males and females of pre-marriage, marriage, and after marriage ages in order to ensure the attitude change from the three categories. The researchers have decided to target the C class after being done with the secondary and primary data as they made sure that it is the social class that is causing the problem and mainly needs to change their attitude in addition to the ability to reach them through a campaign unlike the D class which is hard to be reached.

FACULTY OF

MANAGEMENT SCIENCES

Measuring the consumer attitude towards co-creation process and its effect on consumer engagement and customer loyalty Applied on: IKEA

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153495

DESCRIPTION

In the modern world, products and services are available everywhere for customers to purchase in various places, with various prices and various ways of promotion. So, for a company to stand out from clutter, it has to have a competitive advantage preferably a creative one that has never been experienced in the market or has not been reputed. It also has to communicate with its customers. According to France, Merrilees& Miner (2014), co-creation occurs when there is a mutual relationship between the company and the customers. Usually, in co-creation, the company strives to involve customers to participate in the product/service development process. Companies apply co-creation to determine customer attitude and create customers engagement and loyalty. The researchers will cover the main concept which is co-creation process and will also cover other concepts which are customer attitude customer engagement and customer loyalty.

تسعى الشركة لإشراك العملاء للمشاركة في عملية تطوير المنتج / الخدمة. تطبق الشركات التأسيس المشترك لتحديد موقف العملاء وخلق مشاركة العملاء وولائهم. سيغطي الباحثون المفهوم الرئيسي وهو عملية الإنشاء المشترك وأيضًا المفاهيم الأخرى وهي موقف العملاء ومشاركة العملاء وولاء العملاء.

Supervisor:
Dr. Ibrahim Al-Sahouly

Impact of Digital Marketing Advertisements on Consumer Attitude: Applied on Otlob

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Youssef Hisham El-Messady
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DESCRIPTION

The aim of this research is to measure the Impact Digital Marketing Advertisements on Consumer Attitude by measuring three different hypotheses. The area of application was Otlob online food ordering service. There are three objectives in this research which are; to measure the effect of digital marketing advertisements on consumer attitude, study the effect of digital marketing advertisements on consumer buying behavior, and identify the relationship between digital marketing advertisements and credibility. Researchers first used secondary research in order to gain more insights about the research topic. Followed by a primary research to get more reliable data, by using in-depth interviews with consumers and experts, while also conducting 180 questionnaires assessed and analyzed by SPSS. Researchers found that digital marketing advertisements have an effect on consumer attitude and buying behavior, and there is a relationship between digital marketing advertisements and credibility.

لهدف من هذاالبحث هوقياس تاثيرالتسويق الرقمي من خلال قياس ثلاث فرضيات مختلفة. مجال لتطبيق كان خدمة لطلب الطعام عبرالإنترنت. هناك ثلاثة أهداف في هذا البحث وهي: قياس تأثيرإعلانات التسويق الرقمي على موقف المستهلك، دراسة تأثيرإعلانات التسويق الرقمي على سلوك شراءالمستهلك،وتحديد العلاقة بين إعلانات التسويق الرقمي والمصداقية. وجد الباحثون أن إعلانات التسويق الرقمي لها تأثيرعلى سلوك المستهلك وسلوك الشراء،وأن هناك علاقة بين إعلانات التسويق الرقمي والمصداقية.

Supervisor:
Prof. Yasser Tawfik

Measuring parent's perception of the improvements in the quality of governmental elementary and pre-elementary educational system in line with Egyptian vision 2030

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DESCRIPTION

In Egypt's vision 2030, education will be future oriented and visionary in the face of technological innovations and changes. Therefore, examining the state of the education sector is of great importance. There have been noticeable improvements in Egypt in some aspects of education, such as enrollment levels, way of teaching, curriculum, implementing technology, and other changes. Thus, this paper provides an overview on parent's perception of the improvements in the quality of governmental educational system in line with Egyptian vision 2030 by conducting qualitative research in the exploratory research and quantitative research using self-administrated questionnaires. The results showed that parents have a neutral perception of the changes undertaken aalso the educational quality affects parent's perception and the most factor affecting parent's perception is the qualification of teachers

يهدف هذا البحث إلى دراسة إدراك الوالدين للتحسينات في جودة النظام التعليمي الحكومي بما يتماشى مع الرؤية المصرية ٢٠٣٠. يركز التحليل المستخدم إلى حد كبير على المستويات الابتدائية وما قبل الابتدائية من خلال إجراء البحوث النوعية في البحوث الاستكشافية و البحث الكمي باستخدام الاستبيانات ذاتية الإدارة. أوضح أن أولياء الأمور لديهم تصور محايد للتغيرات التي تم إجراؤها وأن جودة التعليم تؤثر على تصورات الوالدين وأن العامل الأكثر تأثيرًا على تصورات الوالدين هو تأهيل المعلمين

Supervisor:
Dr. Samya El Sheikh

Measuring the effect of perception towards e-government services on the citizen's engagement and citizen's trust. Applied on www.egypt.gov.eg

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162681

DESCRIPTION

E-government service is an important issue that we cannot turn a blind eye on it, as it is considered one of the most crucial techniques that must be applied by each developed country in order to facilitate and ease the process of fulfilling tasks for the citizens. This research aims to study the importance of e-government through discussing and explaining the main variables, which are perception, attitude, engagement and trust, then assessing the impact of these variables on e-government services. The purpose behind conducting this study is to measure the efficiency of the service and to increase the citizens' awareness through using questionnaires. The researchers have used different tools such as descriptive analysis, Kruskal-Wallis test and Spearman Correlation test for each variable in attempt to extract the most accurate results that could be generalized.

خدمة الحكومة الإلكترونية هي قضية مهمة لا يمكننا أن نغض الطرف عنها ، لأنها تعتبر واحدة من أهم التقنيات التي يجب أن تطبقها كل دولة متقدمة من أجل تسهيل وتيسير عملية إنجاز المهام للمواطنين . يهدف هذا البحث إلى دراسة أهمية الحكومة الإلكترونية من خلال مناقشة وشرح المتغيرات الرئيسية ، وهي الإدراك والموقف والمشاركة والثقة ، ثم تقييم تأثير هذه المتغيرات على خدمات الحكومة الإلكترونية

Supervisor:
Prof. Ahmed Samir Roushdy

The Effect of consumer perception of Acquisitions on the Brand Image & Purchase Intention" An Area of Application Nestlé's Acquisition of Bonjorno

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DESCRIPTION

Purpose - The purpose of this research is to examine the effect of acquisitions on brand image and to examine the effectof acquisitions on the purchase intention, with an area of application on Nescafés' acquisition of Bonjorno.
Methodology - The researchers used questionnaires distributed among 246 participants using IBM's statistical package for the social sciences (SPSS).
Findings - The researchers found that there is a positive relationship between the acquisition, brand image and purchase intention. However, the strength of the relationship varied depending on the brand.
Implications – Acquisitions are often measured based on the effect on the company rather than the customers.

الهدف من هذا البحث هو دراسة تأثير إستحواذالشركات على صورة العلامة التجارية و دراسة تأثير الإستحواذ على النية الشرائية ومجال التطبيق هو إستحواذ نسكافيه على بونجورنو وجد الباحثون أن هناك علاقة إيجابية بين الإستحواذ ، صورة العلامة التجارية و النية الشرائية

Supervisor:
Dr. Samya El Sheikh

The Effect of Audit Quality and Earnings Management on Cost of Equity

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DESCRIPTION

The current study examines the effect of audit quality and earnings management on cost of equity. The current study used a sample of the 10 firms listed in EGX30 as of 2017 during the period of 2015-2017. To measure the variables, data were collected from auditor's report, financial statements which were downloaded from the companies' websites. To test the hypotheses, descriptive, correlation, and regression analysis were conducted using SPSS program. There is a positive insignificant association between the Audit quality and Cost of equity, There is a positive insignificant association between Earnings management and cost of equity.

تبحث الدراسة الحالية تأثير جودة التدقيق وإدارة الأرباح على تكلفة الأسهم. استخدمت الدراسة الحالية عينة من ١٠ شركات مدرجة في EGX30 اعتبارًا من ٢٠١٧ خلال الفترة ٢٠١٥-٢٠١٧. لقياس المتغيرات ، تم جمع البيانات من تقرير مدقق الحسابات ، والبيانات المالية التي تم تنزيلها من المواقع الإلكترونية للشركات. لاختبار الفرضيات ، تم إجراء التحليل الوصفي والارتباطي والانحداري باستخدام برنامج SPSS. يوجد ارتباط إيجابي ضئيل بين جودة التدقيق وتكلفة الأسهم ، وهناك ارتباط إيجابي ضئيل بين إدارة الأرباح وتكلفة الأسهم.

Supervisor:
Prof. Hazem Yassin

Earnings management and Annual report readability: Evidence from Egyptian listed companies

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Norhan Abd El Rasoul
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Dina Adel
164405

Hagar Allam
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DESCRIPTION

The current study examines the effect of earning management on annual report readability. The sample includes 12 firms listed in EGX from 2013 to 2017 from different sectors such as food and beverage sectors, and construction sector. Fog Index is used to measure annual report readability. To measure Earning Management, Modified Jones model is used. In order to test the research hypotheses, three statistical analysis techniques (descriptive analysis, Pearson's correlation, and regression analysis) are used. It is concluded that there is a positive significant association between earnings management and FOG Index. This indicates a negative association between earning management and annual report readability. This can be explained as when management engages in Earning Management practices, they tend to hide this behavior by increasing the complexity of the annual report.

تبحث الدراسة الحالية تأثير كسب الإدارة على سهولة قراءة التقرير السنوي. يستخدم مؤشر FOG لقياس قراءة التقرير السنوي. لقياس الأرباح ، يتم استخدام نموذج جونز المعدل. من أجل اختبار فرضيات البحث ، يتم استخدام ثلاث تقنيات تحليل إحصائي (التحليل الوصفي ، ارتباط بيرسون ، وتحليل الانحدار). وخلص إلى أن هناك علاقة إيجابية إيجابية بين إدارة الأرباح ومؤشر FOG. هذا يشير إلى وجود علاقة سلبية بين إدارة الأرباح وقراءة التقرير السنوي

Supervisor:
Prof. Hazem Yassin

The Impact of Integrated Reporting on Firm Value

Yasmine Abdalla
163143

Soha Tarek
161749

Sara Kamel
164245

Monica Adel
164403

DESCRIPTION

This study examines the effect of integrated reporting on firm value. The sample includes 9 companies listed in the Egyptian stock exchange during the period (2013-2017) making 41 observations. To measure the integrated reporting, content analysis was applied using a customized checklist. To test the research hypothesis, descriptive analysis, Pearson's correlation and regression analysis were used. The results showed that there is a positive and insignificant association between integrated reporting and firm value.

تتناول هذه الدراسة تاثير التقارير المتكاملة على قيمة الشركة. تشمل العينة ٩ شركات مدرجة في البورصة المصرية خلال الفترة (٢٠١٧-٢٠١٣) مع ٤١ ملاحظة. لقياس التقارير المتكاملة ، تم تطبيق تحليل المحتوى باستخدام قائمة مراجعة مخصصة. لاختبار فرضية البحث ، تم استخدام التحليل الوصفي وتحليل الارتباط والارتباط من بيرسون. أظهرت النتائج أن هناك علاقة إيجابية غير مهمة بين التقارير المتكاملة وقيمة الشركة.

Supervisor:
Prof. Hazem Yassin

The Effect of Risk Management on Bank's Performance.

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155049

Youssef Ayaman
161543

Omar Sameh
143267

Mahmoud Ali
160413

DESCRIPTION

The current study examines the effect of risk management on the financial performance of banks. To test the research hypotheses, descriptive analysis, Pearson correlation and regression analysis were used. The results showed that there is a positive significant association between Return on Assets and Non-performing Loan ratio, Capital Adequacy Ratio and Liquidity ratio. However, there is a negative insignificant association between capital ratio and ROA. In addition, there is a positive significant association between ROE and both NPL ratio and Liquidity ratio. However, there is a positive insignificant association between CAR and ROE and there is a negative significant association between capital ratio and ROE.

تبحث الدراسة الحالية تأثير إدارة المخاطر على الأداء المالي للبنوك. لاختبار الفرضيات البحثية ، تم استخدام التحليل الوصفي ، ارتباط بيرسون وتحليل الانحدار. أظهرت النتائج أن هناك علاقة إيجابية مهمة بين نسبة العائد على الأصول ونسبة القروض المتعثرة ، ونسبة كفاية رأس المال ونسبة السيولة. ومع ذلك ، هناك علاقة سلبية ضئيلة بين نسبة رأس المال والعائد على الاستثمار. بالإضافة إلى ذلك ، هناك ارتباط إيجابي كبير بين العائد على حقوق المساهمين وكلا نسبة القروض المتعثرة ونسبة السيولة. ومع ذلك ، يوجد ارتباط إيجابي ضئيل بين CAR و ROE وهناك علاقة سلبية هامة بين نسبة رأس المال و ROE.

Supervisor:
Prof. Hazem Yassin

The impact of corporate governance on the future cash flow

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152567

Dina Gamal Ibrahim
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Etien Sakr
153613

Anas Sherif Fahmy
154861

DESCRIPTION

The objective of this research is to examine the effect of the independent variable which is Corporate Governance on the dependent variable which is Future Cash Flow. We measured the corporate governance with number of board of directors, Audit type, and CEO duality, and measuring the Future Cash Flow with Barth Model. The analysis was made in descriptive, correlation, and regression analysis using SPSS. The results shows that there's a positive insignificant relationship between corporate governance and future cash flow. The limitation of this research was, firstly the size of the sample was not enough to generalize the results, secondly that the country used in the research is suffering an economic instability which leads its economy to have currency fluctuations and high inflation rate, thirdly and last that corporate governance is not the only variable that affect future cash flow therefore the next researches should take into consideration other variables.

هذا البحث هو دراسة تاثير المتغير المستقل وهو حوكمة الشركات على المتغير التابع وهو التدفق النقدي المستقبلي. تظهر النتائج أن هناك علاقة إيجابية ضئيلة بين حوكمة الشركات والتدفق النقدي المستقبلي. كان الحد من هذا البحث ، أولاً حجم العينة لم يكن كافيًا لتعميم النتائج ، وثانيًا أن البلد المستخدم في البحث يعاني من عدم استقرار اقتصادي مما يؤدي إلى تقلبات العملة وارتفاع معدل التضخم ، ثالثًا وأخيرًا أن حوكمة الشركات ليست هي المتغير الوحيد الذي يؤثر على التدفق النقدي في المستقبل ، لذا يجب أن تأخذ الأبحاث التالية في الاعتبار المتغيرات الأخرى.

Supervisor:
Prof. Mohamed El-Deeb

Logical Design of Junior Project Adoption System "JPAS"

Mohamed Akram Fawzy
150207

DESCRIPTION

This system is generally tackling a business opportunity, which is connecting student's graduates with companies and startups which will benefit a lot of users/people/business and will generate a decent amount of money for the website to keep performing and developing. Business in Egypt now a days are struggling to found new creative an innovative idea in the market due to the lack of sharing in the academic community, this website will not only help business get new ideas will they will get them in much cheaper cost they are going to adopt a student mainly making his graduation project with them till the project is fully matured, the company is able employee the student who worked on that project.
We are going to build a community full of potential to change the business of the Egyptian market we will have companies, passion graduates, community users (guest), reviewers etc... all motivating and benefiting from each other's.

يتعامل هذا النظام عمومًا مع فرصة عمل، وهي ربط خريجي الطلاب بالشركات، الشركات الناشئة والتي ستفيد الكثير من المستخدمين / الأفراد / الأعمال وستولد مبلغًا لا بأس به من المال للموقع للحفاظ على أدائه وتطويره. يتم تبني المشروح في حالة اكتماله فقط ، بحيث ان شركة تستطيع ان توظف الطالب الذى قام بمشروعة تكافح ريادة الأعمال في مصر حاليًا أيامًا من أجل إيجاد فكرة إبداعية جديدة في السوق بسبب عدم المشاركة في المجتمع الأكاديمي.

Supervisor:
DR. Adel Ghanam

Logical Design of Telecare System for Elderly People

Yasmeen
El Hussein Mohamed
152743

DESCRIPTION

The telecare system aims to help elderly people who stays alone at home to be safe. This system provides help when the patient uses his wristband asking for help, the home base unit sends the alarm signals to the care center therefore, the care center will contact the nearest hospital to send an ambulance. Patients or assigned contacts (family members, neighbors) can make an appointment/s with the care professionals through their account on the system. This project attempts to create an opportunity to help elderly people to live alone without being in danger or to depend on nursing home. A similar telecare system is used it proved that users' life (patients) enhanced a lot. The needed enhancement for this system is to focus more on having a better connection between care centers and hospitals.

يهدف نظام الرعاية عن بُعد إلي مساعدة كبار السن الذين يعيشون بمفردهم في المنزل. تقدم هذه التقنية المساعدة عن طريق سوار يوضع حول المعصم للفرد كبير السن و ذلك يتم عن طريق الضغط علي زر معين في السوار فيرسل إشارات الي وحدة إستقبال إلكترونية موجودة بالمنزل فترسل بدورها هذه الإشارات إلي مركز الرعاية.

و بعد أن يستقبل مركز الرعاية هذه الإشارات يتواصل مع أقرب مستشفي محيطة لمنزل المريض المستهدف لارسال سيارة اسعاف

Supervisor:
Dr. Adel Ghanam

Logical Design of Club Management system

Kareem
Mohamed Osama
155867

DESCRIPTION

Club Management System helps both the members and the club itself. This website will help the user in reserving many club activities such as sports, trips, part areas for birthdays and other events , and reserving a football filed(not for training) for members that want to play. All of this reservation will be from home and the user can pay online. Also the user can pay the annual subscription online through the website. Not only the system for reservation but also can know the new announcements or events that happened/will happen in the club. The website also will allow the users to ask questions through FAQ feature that help the users to know what they want from home. All of this feature will have many advantages for the club. This project will increase the customer satisfaction and the loyalty to the club. This system will decrease the percentage of errors by the club as all of this transaction will be entered/made by the user.

هذا النظام يساعد فقط اعضاء النادي لحجز اي من (الرياضة، الملعب، حديقة الحفلات او السفر) و دفع عن طريق الانترنت. ايضا يساعد الاعضاء لمعرفة الاشتراك السنوي و دفعها عبر الانترنت، معرفة اخبار النادي و الاعلان عن اي شيء. يوجد ايضا امكانية للعضو ان يسأل اسألة عن طريق خدمة

Supervisor:
Dr. Adel Ghanam

FACULTY OF

PHARMACY

Green Aspects of Wastewater Remediation Using Rice Husk and Water Hyacinth Roots as a Natural Biomass

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Ibrahim El Saved
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151607

Yousef Sobhy
150189

ABSTRACT

Within the last years, there were a lot of studies concerned with the prevention of chemical pollution caused by contamination of wastewater with veterinary drugs, as this drugs are taken by the animals and then secreted in the milk and waste water. The presence of such drug residues in wastewater is a public health problem, which have a negative effect on human health, trigger cancer, mutagenicity and increase the biological drug resistance. Aiming to reduce the effect of such contamination, in this study we will study Ciprofloxacin, Sulfamethoxazole remediation. Using some analytical technique in the detection of the present traces of veterinary drugs in the wastewater (using HPLC-UV, Agilent Zorbax C18) and natural treatment of those samples using rice husk and water hyacinth as a green ecofriendly bioremediation, which will play an important role in prevention of such pollution. Especially the using of a cheap material e.g. rice straw will be more effective in prevention of pollution caused by it is burning in Egypt and eliminating the bad effect of water hyacinth on the water ways. Comparing those results with the standard adsorption of activated charcoal and nanotechnology. Furthermore trying to make the process of decontamination of those drugs of concern, easier and safer for using by the human being and the community.

حديثا اهتمت الكثير من الابحاث العلمية بعمليات تنقية المياه وبالدور الملموس الذي تلعبه تنقية المياه في منع العديد من الامراض مثل الأورام السرطانية والتشوهات الجنينية وغيرها من الامراض الخطيرة التي تهدد المجتمع. التلوث الكيمائي للمياه بمخلفات مصانع الأدوية والعقاقير البيطرية وغيرها لها الدور الأكبر في المشاكل وبالأخص عندما يستهلكها الأنسان والحيوان تؤدي الي تفاقم الاضرار وزيادتها مثل مشكل المقاومة البكتيرية للمضادات الحيوية وغيرها

Supervisor:
Prof. Safaa Riad

Teaching Assistant:
AL. Heba Tarek

Detection of Selected Veterinary Drugs in Milk and Water, Before and After Treatment

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Kholoud Samir
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152811

ABSTRACT

Sensitive methods are considered to be essential in the analysis of drug residues in complex animal tissue matrices. The main hazard of such residues is the development of antimicrobial resistance that may be transferred to the consumers. Accordingly, the target of our project is mainly the development of validated, sensitive and simple chromatographic methods aiming for the determination of trimethoprim (TMP) and sulfadiazine (SDZ) in their pure forms and in residues of meat tissue. Two methods were developed and validated, through which a comparative study was performed. The first method is a RP- liquid chromatographic method while the second one is a more advanced green miceller chromatographic method. Validation was performed according to the International Conference of Harmonization guidelines (ICH). Linearity of the studied drugs covered the range of 0.5-60 μg/mL for SDZ and 0.5-70 μg/mL for TMP. The developed methods showed good recovery, repeatability, and sensitivity. Moreover, high extraction efficiency was obtained without matrix interference in the extraction process and in the subsequent chromatographic determination. Statistical comparison of the obtained results compared with those of a reported method revealed good agreement and proved that there was no significant difference in the accuracy and precision between the reported and the two developed methods.

تعتبر طرق التحليل الحساسة ضرورية لفحص و تعيين مخلفات الادوية في الانسجة الحيوانية المعقدة. و قد يمثل الخطر الرئيسي لمثل هذه المخلفات تطوير مقاومة مضادات الميكروبات التي يمكن نقلها إلى المستهلكين

Supervisor:
Prof. Manal Fouad

Teaching Assistant:
TA. Lamice AbdelRahman

Chromatographic Quantification of Drug Residues in Food of Animal Origin

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Madonna Shaheer
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ABSTRACT

Nowadays, livestock marketed products represent forty percent of the daily diet. Meanwhile, veterinary drugs are also widely used for diverse intentions, including maintaining health and improving feed efficiency of animals. However, the most used class of veterinary drugs is antibiotics including Trimethoprim (TMP) and Sulfadiazine (SDZ). The overdosing or the sudden stop of these agents causes the accumulation of drug residue in different animal. Subsequently, consumption of livestock products containing such residues may impose negative effects on human health. Consequently, the present work is devoted to the development of sensitive HPLC-UV methods for the quantitative estimation of TMP and SDZ in chicken muscles. In method 1; the drugs were extracted using methanol. Chromatographic separation was accomplished on a C18 column and mobile phase of water: ethanol (90: 10 v/v) pH = 5.5 using 0.1N acetic acid. The UV detection was at 230 nm and 280 nm for TMP and SDZ, respectively. The method was linear in the range of 0.5-50 µg/mL and 0.5-60 µg/mL for TMP and SDZ, respectively. In method 2(Micellar Chromatography); 0.1 M SDS was used to extract the two drugs. Chromatographic separation was performed on Xterra C18 column and mobile phase composed of 0.1M SDS: acetonitrile (90: 10 v/v) pH = 2.5 with citric acid. The UV detection was 254 nm.

الحاضر ، تمثل المنتجات الحيوانيةالتي يتم تسويقها اربعين بالمائة من النظام الغذائي اليومي. وفي الوقت نفسه ، تستخدم الأدوية البيطرية أيضًا على نطاق واسع في اغراض متنوعة ، بما في ذلك الحفاظ على الصحة وتحسين كفاءة تغذية الحيوانات.

Supervisor:
Dr. Dalia Mamdouh

Teaching Assistant:
TA. Amira Ismail

Quantitative Determination of Cough preparations in Plasma Samples

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Menna Mahmoud
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ABSTRACT

This project presented an HPLC-MS/MS method for the determination of two active ingredients of cough preparation including a mucolytic and an expectorant quantitatively in plasma samples. This study called bioequivalent study which done to make sure that there is a therapeutic equality between a pharmaceutically equivalence a reference and test. The active drug substances were determined in an available biological matrix (plasma). Many trials were done for choosing the solvent that recover the highest amount of the two drugs, TBME is most suitable solvent. We have done several chromatographic trials to find the most suitable column and solvent. After optimization of the method, the two drugs were administered to three volunteers then plasma samples were taken at time interval. Through vitro calibration we established calibration curve using daughter peaks at of (114.1) and (125). In vivo calibration was done using an internal standard to eliminate the error. We have injected the medications into HPLC MS/MS the calculated the kinetic parameters.

تعتمد دراسة المشروع علي استخدام طريقه HPLC MS/MS للتعرف علي المواد الفعاله لاثنين من الادويه المستخدمه كدواء لعلاج السعال احداهما طارد للبلغم و الاخر مزيب للبلغم في البلازما كميا .و هزه الدراسه تسمي ب دراسة التكافو الحيوي التي تستخدم للتاكد من وجود مساواة علاجيه بين التكافو العلاجي للدواء و المرجع .

Supervisor:
Dr. Sarah Salah

Teaching Assistant:
TA. Rana Waleed

Wastewater Treatment Containing Antibiotics Residue

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ABSTRACT

Shortage of water is a global problem, so reusing wastewater and its treatment was considered an effective applicable solution. A main threat to wastewater treatment is the presence of traces of antibiotics that can produce bacterial resistance to humans. In this work, we used the adsorption technique for waste water treatment using the pectin extracted from citrus fruits as a natural, abundant, low cost biopolymer adsorbent to remove Levofloxacin as an example of fluoroquinolones class of antibiotics. We studied the efficiency of different grades of purified pectin nanoparticles (1%, 3% and 5%).The characterization of the pectin nanoparticles were done via Transmission Electron Microscope (TEM), Scanning Electron Microscope (SEM) and X-Ray Diffraction (XRD). Different factors affecting the adsorption process were studied such as the contact time, pH, concentration of the drug, and concentration of pectin in order to obtain the ideal conditions for maximum removal of Levofloxacin antibiotic. A validated HPLC/UV method was developed to measure the amount of the adsorbed drug. Using 0.2 gm magnetite pectin nanoparticles; 79.7% and 59.51% removal of levofloxacin was obtained at pH 4 and pH 7, respectively. Maximum adsorption (96% removal) was obtained using 0.4 gm magnetite pectin nanoparticles (5%) at pH 4 with contact time 24 hours. Thus, these promising results could be applied for pharmaceutical waste water purification from traces of antibiotics.

يمثل نقص المياه مشكلة عالمية ، لذا فقد اعتبر إعادة استخدام المياه العادمة ومعالجتها حلا فعالاً قابلاً للتطبيق. وجود كميات قليلة من المضادات الحيوية يمثل تهديدا حيث وجود احتمالية ظهور بكتيريا عالية المقاومة و لذلك وجب معالجة المياه من هذه الادوية.

Supervisor:
Dr. Christine Magued

Teaching Assistant:
TA. Passent Medhat

Validated Chromatographic Method for Determination of Bromhexine and Guaifenesin Co-administered Drugs

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150947

Mariam Adel
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Fedaa Essam
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Esraa Alaa
151421

ABSTRACT

Chromatography is a powerful tool used in analytical chemistry to detect the concentration of complex sample analyte through separating and identifying processes. Ultra performance liquid chromatography- tandem mass spectrometry is a crucial technique used for detection of plasma drug concentration, drug discovery and clinical study. UPLC MS/MS used for quantification bromhexine and guaifenesin in human plasma by using internal standard such as tetrazoline. Samples of plasma extracted by method called liquid–liquid extraction. Extraction of two drugs carried out by using tertiary butyl methyl ether (TBME). Two drugs separated by using phenomenex kinetex C18 column (2.6u 100A 50 x 4.6mm) .using mobile phase consist of methanol: water: formic acid (95: 5: 0.1, v/v/v). Multiple reaction monitoring (MRM) involving the transitions 377m/z 114.1m/z, 199.1m/z 125m/z , 201,1m/z 131m/z for bromhexine, guaifenesin and tetrazoline respectively, using Agilent, quad pump, 1290 infinity auto sampler and triple quad 6420 detector with mass hunter software. Validation of analytical method according to the US Food and Drug Administration guidelines. According to mentioned guidance the results were accepted. Concentration of linearity was established for the range of 5.0– 50 ng/ml and 50- 1500 ng/ml with a coefficient of determination (r 2) equal to 0.9998 and .9988 for bromhexine and guaifenesin respectively. Concentration of the standard curve range is obtained by acceptable precision and accuracy. A pharmacokinetic study was performed on healthy Egyptian volunteers. Method proposed enables study pharmacokinetic, bioavailability or bioequivalence for identification and quantitation of bromhexine and guaifenesin.

يكون الكروماتوجرافي أداة قويه يستعمل في الكيمياء التحليليه لكي يحدد تركيز العينات المعقده عن طريق الفصل وتحديد المواد. جهاز السائل الكروماتجرافي ذات الاداء العالي المتصله ب كتله يستخدم لتحديد تركيز الدواء في البلازما واكتشاف الدواء والدراسات الاكلنيكيه.

Supervisor:
Dr. Omnia Ali

Teaching Assistant:
TA. Norhan Alaa

In-Vitro Evaluation of Synergestic Effect of Quercetin on the Anticancer Activities of 5 Fluorouracil in MDA.MB231 Breast Cancer Cell Line.

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Lamis Khaled
153491

Ivodia Maged
151675

David Mofeed
154273

ABSTRACT

Breast cancer is an uncontrolled cell division in the mammary glands of the breast or in the passages that transport milk to the nipples. Breast cancer is considered the second type of cancer that is most commonly occurring. In 2018, there were from 2-3 million new cases worldwide. 5-Flourouracil is a thymidylate synthase inhibitor whose antimetabolites FdUMP, FdTUP and FUTP have cytotoxic effects against breast cancer cells. Quercetin is a natural powerful flavonoid that acts as an antioxidant to protect the body from reactive oxygen species. It also possesses an anti-inflammatory action through cyclooxygenase and lipooxygenase inhibition. The major aim of the current study was to evaluate the synergistic effect of quercetin and 5-FU on MDA.MB231 breast cancer cell line. The cytotoxicity of the drugs was determined by MTT-based assay. Combination index (CI) was calculated using the constant ratio combination design. The results of the study revealed that IC50 of 5-FU and quercetin were 4.8 μM and 90.5 μM, respectively. CI values for the combinations 0.5 fold IC50 (0.5 folds IC50 5-FU: 0.5 folds IC50 quercetin), 1fold IC50, 1.5 fold IC50 and 2 fold IC50 were 0.015, 0.005, 0.004 and 0.003, respectively. In conclusion, the study results showed that addition of quercetin to 5-FU caused a very strong synergism for their individual anticancer effects.

تقييم التأثير التآزري للكويرسيتين على النشاط مضاد السرطان ل5-الفلوروبوراسيل في خلايا سرطان الثدي MDA.MB231 في المختبر."

Supervisor:
Dr. Mohamed Farouk

Teaching Assistant:
TA. Mariam Sabry

Anti-Obesity Activity of the Aqueous Extract of Moringa olifera Herbal Teas Family Moringaceae.

Mohamed Ibrahim
103635

Martha Salah
150335

Huda Sayed
152695

Ahmed Hesham
151397

ABSTRACT

Obesity is a serious condition in which body fats are excessively accumulate in the body and associated with several comorbidities like diabetes mellitus, cardiovascular diseases, and osteoarthritis. Moringa olifera is a traditional herbal medicine for treatment of conditions like arthritis, constipation, and hypertension. The present study aimed to evaluate the antiobesity and antihypercholesterolemic effect of the aqueous extract of Moringa olifera herbal teas as Moringa olifera alone and in combination with lemon and Mentha in a high fat diet induced obesity in rats. Adult male rats were completely randomized in ten groups each compromising six rats. The first group was kept on the normal rodent chow for three months but the rest of groups were kept on a high fat diet for two months. Group number 2 represent obese group, group number 3 was assigned as high fat diet group (HFD), group number 4 represent standard simvastatin treated group (SD) and from group 5 to 10 treated with Moringa olifera aqueous extract, these groups received medicine in different doses and preparations. mRNA expression of FAS was significantly high in HFD group compared to control and significantly increased in all treated groups. Moringa lemon (ML) 400mg showed prominent effect compared to simvastatin groups. Also, mRNA expression of PPAR alpha was significantly reduced in HFD compared to control and significantly increased in all treated groups.

النشاط المضاد للسمنة في المستخلص المائي لعائلة شاي المورينغا

Supervisor:
Dr. Nora Abo Rrehab

Teaching Assistant:
TA. Radwa Saeed

The Role of Micrornas in the Pathogenesis of Acute Myocardial Infarction.

Nada Hossam
150121

Marco Sameh
151521

Manar Eldosoki
151971

Hussein Hassan
151535

ABSTRACT

MicroRNA (miRNA) is considered as a small non-coding RNA which regulate gene expression by preventing the translation including destruction of specific mRNA. Acute myocardial infarction (AMI) is characterized by inflammation, cardiomyocyte apoptosis, and cardiac necrosis that may develop heart failure. One of regulated necrosis is necroptosis and is reliant on signaling pathways relating receptor interacting protein kinase (RIPK). Fasassociated protein death domain (FADD) is negative manager for necroptosis. MicroRNA shows critical character into heart diseases pathogenesis. 10 mice have indiscriminately allocated in two sets: control group and induction group by s.c injection of isoprenaline (100 mg/kg). Histological examination was done to evaluate heart injury in heart tissues besides troponin I biochemical calculation. The levels of miRNA-103 in heart tissues were determined using based miRNA quantitative real-time polymerase chain reactions (qRT-PCRs). The subsequent consideration was inspected to study the probable mechanisms of miRNA-103 in necrosis: FADD, RIPK and IL-6 (Interleukine-6). The results revealed that in AMI group miRNA 103 was significantly elevated while the expression level of FADD was decreased, moreover RIPK and IL-6 were significantly increased. In exploring the molecular mechanism of miRNA 103 in AMI, The present study provides new evidence showing that miRNA 103 up regulation through targeting FADD, resulting loss of FADD leads to resistance to apoptosis and cells undergo necroptosis instead.

يعتبر الحمض النووي الريبوزي الدقيق بمثابة حمض نووي صغير غير مشفر الذي ينظم التعبير الجيني عن طريق منع ترجمه الحمض النووي الريبوزي الرسول. تتميز الذبحة القلبية الحاده باتهاب عضله القلب , موت الخلايا المبرمج و النخر القلبي التي تؤدي الي الفشل القلبي.

Supervisor:
Dr. Amr Abdel Hamid

Teaching Assistant:
AL. Samer Atef

The Association of Gentic Variants with the Risk of Type 2 Diabetes Mellitus in Egyptian Population

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ABSTRACT

Background and Aim of work Diabetes is a physical problem that makes blood sugar levels higher than normal. This is also called hyperglycemia. Type 2 diabetes is called insulin resistance. Initially, beta cells make up additional insulin. Over time, however, the pancreas cannot be maintained and enough insulin cannot be made to maintain normal blood glucose levels. Our goal is to relate genetic variants to the risk of type two diabetes in Egyptian population and the possible effects of these mutations on diabetic complications. Material and Methods Experimental deign: The study is carried out with 60 patients into two groups. During collecting blood samples from controls & patients, 5ml blood was withdrawn from each person. Then divided in 3 tubes. First tube for spectrophotometer, the second for ELISA and the third is for PCR sequencing, then started to measure the blood glucose & lipid profile level by spectrophotometer. Also, using PCR technique to determine the genetic polymorphism of KCNQ1 & KCNJ11 genes in our diabetic patients. Results: Our results revealed that there were significant increase in lipid profile serum level in diabetic patients compared to controls ones; on the contrary HDL was significantly higher in the control groups than diabetics. Also there was a significant mutation in KCNQ1 & KCNJ11 on diabetic groups which finally proves that genetic polymorphism can be highly associated with prevalence of diabetes mellitus.

مرض السكري هو مشكلة جسدية تجعل مستويات السكر في الدم أعلى من المعتاد. وهذا ما يسمى أيضا ارتفاع السكر في الدم. كشفت النتائج أن هناك زيادة كبيرة في مستوى مصل الدهون في المرضى الذين يعانون من مرض السكري مقارنة مع الضوابط منها ؛ على العكس من ذلك كان HDL أعلى بكثير في مجموعات المراقبة من مرضى السكر. أيضا كان هناك طفرة كبيرة في KCNQ1 أو KCNJ11 على مجموعات السكري مما يثبت في النهاية أن تعدد الأشكال الجيني يمكن أن يرتبط بشكل كبير مع انتشار داء السكري.

Supervisor:
Dr. Sherine Mahmoud

Teaching Assistant:
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The Effect of a Novel PDE5 Inhibitor (RF2) on Impaired Memory in Mice

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ABSTRACT

Neuroinflammation is a combination of responses to brain injury including the activation of resting microglia and astrocytes resulting in liberation of proinflammatory mediators and loss of neuronal structure and function. Our study was done on six groups of mice, each group of six mice. Three control groups included negative group, positive with standard sildenafil and positive with our drug RF2. Three LPS groups included LPS-induced neuroinflammation group, sildenafil treated group and RF2 treated group. Methods: Morris Water Maze (MWM) test was done on four days with four trials per day for spatial memory by exploring the invisible platform in tank and measuring mean escape latency time (MEL). On 5th, we utilized the probe test that includes tank without platform and recorded %quadrant time that mouse spent in the platform previous place. We allowed the mice explore the three arms of Y-Maze then record %alternation. We anesthetized the mice then sacrificed them and collected their brains. Brain sections were cut, fixed to glass slides and imaged with microscope. According to results, MEL time of our drug group is similar to control group but shorter than LPS group. Significant increase was observed in %Quadrant Time and %Alternation values in our drug group to a level similar to control and standard groups.

الالتهاب العصبي هو نتيجة لتحرير وسطاء التهاب وبالتالي فقدان بنية الخلايا العصبية ووظيفتها بسبب تنشيط الخلايا الدبقية الصغيرة. كان الهدف هو دراسة تأثير مثبط الفسفوديستراز 5 الجديد، RF2 على التهاب العصبي. تم استخدام Sildenafil كعنصر تحكم قياسي إيجابي.

Supervisor:
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Assesment of Anthracycline Induced Cardiotoxicity in Breast Cancer Patients (Incidence, Risk Factors and Prevention)

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ABSTRACT

Background: Anthracycline-based chemotherapy has played a significant role in the treatment of various breast cancer stages with reduced rates of both relapse and mortality. However their benefits has been limited due to their adverse events ranging from myelosuppression to well-established risk of cardiotoxicity. Aim: Investigate the correlation between incidence of cardiotoxicity and risk factors in breast cancer patients treated with Anthracyclines and outline current strategies for prevention of Anthracycline induced cardiotoxicity. Subjects and Method: 60 breast cancer patients, (stages II&IIIA), with age ranging from 30 to 65 years, newly diagnosed and scheduled for chemotherapy .Our study population were classified into group 1 (30 patients receiving Anthracycline-based chemotherapy) and group 2(30 patients receiving Trastuzumab combined with anthracycline-based chemotherapy). Parameters to be measured: ejection fraction, blood pressure, body mass index, and baseline heart rate to record any case of Heart Failure (HF) following anthracyclines treatment. Results: The main comorbidities related to cardiotoxicity among study population were hypertension (44%), diabetes (31%), obesity (90%), and age above 55 years (48%). Baseline ejection fraction recorded for all patients ranges from (42% to 76%). (26 patients) had already diastolic dysfunction grade 1, but only (4 patients) had a substandard ejection fraction. (13 patients) had changes in chemotherapy regimen based on ejection fraction. Group (1) was associated with a HF incidence rate (6.7%) compared to group (2) having significantly increased HF incidence rate (20%).

تقييم انثراسيكلين الناجم عن تسمم القلب لدى مرضى سرطان الثدي (الإصابة ، عوامل الخطر ، والوقاية)

Supervisor:
Dr. Soheir Abo El Azm

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Drug Prescription Pattern in Intensive Care Unit of Al-Moalmeen Hospital in Egypt

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ABSTRACT

Background: The intensive care unit is a special setting in hospitals where patients with severe, life-threating conditions are admitted, these patients mostly suffer from serious infections among other conditions which increases the mortality, morbidity and cost of hospitalization. The presented study was conducted to assess the drug utilization pattern mostly concerning the antibiotics prescription in the ICU. Objectives: Assessing the treatment outcome especially for different combined therapies used for the treatment of gram-negative bacterial infections in the ICU and degree of improvement and period of staying in the ICU. Materials and Methods: Retrospective study conducted in Intensive Care Unit of Al-Moalmeen Hospital. Analysis conducted on 54 cases admitted to ICU in six months. The data included: Age, Diagnosis, Vital signs, Treatment plan, and the outcome. APACHE Score was used to measure disease severity. Inclusion criteria: Patients with gram-negative bacteria infection from sputum, blood, and urine cultures. Exclusion criteria: Patients with Glasgow coma scale less than 9, End-stage metastatic malignant cancer patients, patients with APACHE II score more than 34, ventilated patients upon admission. The data analyzed by performing statistics on “Graph Pad Prism” Results: Total 54 cases showed 62-gram negative bacteria cultures; 9 blood, 28 urine and 15 sputum cultures, also 10 swabs. These 62-cultures showed 31 cases E-coli, 14 cases klebsiella, 11 pseudomonas, and 6 cases Acinetobacter. 40 out 62 microorganisms treated withmonotherapy including (Meronem/Forutm/Maixpime/Rocephin/Tazocin). 22 out 62 microorganisms treated with combined therapy including (Meropenem/Tavanic, Meronem/Ciprofloxacin, Meronem/Tigacylcine, Maxipime / Tavanic, Colistin/Gentamycin, and Ciprofloxacin /Amikin).

تقييم نتائج العلاج و خاصة العلاجات المجتمعة والتي تستخدم لعلاج العدوي البكتيرية الناتجة من الإصابة ببكتيريا سالبة الجرام في وحدة العناية المركزة، وتقييم درجة التحسن ومدة الإقامة في وحدة العناية المركزة.

Supervisor:
Prof. Dr. Abdel Hamid Elhawary

Preparation of Cyclodextrin Polymeric Nanoparticles for Enhancing Drug Bioavailability

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ABSTRACT

Rosuvastatin calcium is one of a statin medication, used to prevent cardiovascular disease in those at high risk and treat abnormal lipids. It is a poorly soluble drug with oral bioavailability 20% due to extensive first pass effect. The study aimed to formulate cyclodextrin loaded polyrotaxane nanoparticles loaded with Rosuvastatin Calcium to improve its solubility, efficacy and reduce side effects. The effects of polymers (PVP), cyclodextrin concentrations or their combinations at different polymers ratios on the drug solubility dissolution rate was studied. The Experimental studies: Polyrotaxane was prepared by dissolving drug, PVP and cyclodextrane all together. The mixture was cooled for 24 hour to allow precipitation of drug- polyrotaxane powder, then dried at at 40 oC for 24 hours. The dried powdered was weighted. The drug content of polyrotaxane was determined. 0.05 g of the prepared polyrotaxane was dissolved in 10 ml methanol, to guarantee complete drug solubility. The drug concentration was measured spectrophotometrically at wavelength 243nm. The Results: The powder weight was 2.8gm presents 22.85 % yield. Five mg of polyrotaxane contains 3.575 mg pure drug (71.5% drug loading and 1%.encapsulation efficiency. Polyrotaxane complex enhance both drug solubility and dissolution.

روسوفاستاتين الكالسيوم هو واحد من ادوية ستاتين ، يستخدم للوقاية من امراض القلب والأوعية الدموية لدى أولئك المعرضين لخطر كبير وعلاج الدهون غير الطبيعية. وهو دواء ضعيف الذوبان مع التوافر البيولوجي عن طريق الفم 20 ٪ بسبب تأثير التمريرة واسعة النطاق.

Supervisor:
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TA. Heidy Ayman

Enhancement of Eplerenone Dissolution rate via Sonoprecipitation: Formulation, Evaluation, Analysis and Stability Testing

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ABSTRACT

Eplerenone is a selective mineralocorticoid receptor antagonist. It is used as an oral antihypertensive drug that acts by inhibiting sodium reabsorption by blocking Na+/K+-ATPase pump, it has very low solubility in water as according to (BCS) it belongs to Class II. This study aims to improve the solubility of poorly water-soluble eplerenone by using sonoprecipitation technique to increase the dissolution rate. Improving solubility of eplerenone is done by making eplerenone sonocrystal formulation to form a uniform and spherical shape of microcrystals using probe sonicator, followed by evaluation of the prepared sonocrystals by particle size measurement using zetasizer, Fourier transform infrared (FTIR) to determine the interaction between stabilizer (Poloxamer 188 and polyethylene glycol 6000) and drug sonocrystals, differential scanning calorimetry (DSC) to observe the changes occurred in eplerenone during spherical formulation process while X-ray diffraction (XRD) using X-ray diffractometer to obtain diffraction patterns for eplerenone, physical mixture, and formulations. The determination of drug content for the prepared soncrocrystal formulations was also performed. In addition, the drug release of the prepared formulae was studied and compared to pure by in vitro dissolution. Results show that particle size range from 132nm to 455nm, FTIR and DSC shows that there's no interaction between stabilizer and drug sonocrystals while XRD indicates the change of the drug into amorphous leading to increase the solubility. Therefore, it is concluded that the sonoprecipitation technique could be a simple and useful technique to improve the solubility of eplerenone with a reduction in particle size, a narrow particle size distribution, and enhanced dissolution properties.

ابليرينون هو مضادات مستقبلات القشرانيات الانتقائية. يستخدم كدواء خافض للضغط عن طريق الفم ، وله قابلية ذوبان منخفضة للغاية في الماء وفقًا لـ نظام تصنيف الصيدلانيات البيولوجية ينتمي إلى الفئة الثانية. تهدف هذه الدراسه الي تحسين القابلية للذوبان في الإلِيبيرينون السيئ الذوبان في الماء باستخدام تقنية البلورات النانويه .

Supervisor:
Dr. Ghada Ehab

Teaching Assistant:
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Novel Vitamin D Delivery System Using Pamam G5 Dendrimer: Development and Characterization

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ABSTRACT

Osteoporosis, is a globally-prevalent progressive skeleton disease among geriatrics, resulting from bone remodeling imbalance and bone resorption. In Egypt, 28.4% of females and 21.9% of males are osteoporotic with brittle, fragile porous and easily-fractured bones. Unfortunately, according to the National Osteoporosis Foundation, there is no cure for osteoporosis but oral bisphosphonates are frequently-prescribed for the management of the disease under very strict patient dosing guidelines and difficult tolerance of gastroesophageal side effects. Our research aims to develop a novel inhaled Risedronate Sodium (RS) marketed as Actonel in combination with vitamin D using PAMAM G5 dendrimer, with less oral adverse effects and better bioavailability. PAMAM G5-RS- Vitamin D complexes were prepared and characterized for different in vitro aspects [mean size, zeta potential, entrapment efficiency (EE) %, Fourier Transform Infrared spectroscopy (FTIR) and morphological shape by Transmission Electron Microscopy (TEM)]. Cell viability % was evaluated by performing MTT cytotoxicity assay on Calu-3 cell line. The developed PAMAM inhaled complex was compared in vivo to the oral commercial product in induced female Wistar albino rats after IP daily injection of dexamethasone phosphate for 2 weeks. The developed complex revealed spherical-shaped nanoparticles with an average size of 180 nm, +0.2 mV zeta potential value which entrapped both drugs successfully. Hydrogen bonding was confirmed by the FTIR spectra between the aliphatic RS OH group as well as Vitamin D alcoholic OH group and PAMAM G5 NH2 group. In vivo results revealed that the inhaled complex offered a more efficient therapeutic response than that of the oral one as it promoted bone mineralization and inhibited bone density loss within a short treatment period. As a general trend, PAMAM G5 had a remarkable inhibitory potential on Calu-3 cells at low RS and Vitamin D concentrations, with cell viabilities largely maintained below 50% at concentrations above 35 µg/ml and 8.25 µg/ml, respectively. Accordingly, it is recommended to consider the utmost levels of precautions in the pharmaceutical application of PAMAM G5 dendrimer.

لسوء الحظ ، وفقا للمؤسسة الوطنية لهشاشة العظام ، لا يوجد علاج لمرض هشاشة العظام ولكن البايفوسفونيت الفموي يتم وصفه بشكل متكرر لإدارة المرض وفقًا لإرشادات جرعات صارمة جدًا للمريض والتسامح الصعب مع الآثار الجانبية المعدية المعوية. يهدف بحثنا إلى تطوير رواية Risedronate Sodium (RS) المستنشقة التي يتم تسويقها في صورة Actonelمع فيتامين (د) باستخدام PAMAM G5 dendrimer ، مع تأثيرات ضارة عن طريق الفم أقل وتوافر حيوي أفضل.

Supervisor:
Prof. Hanan Elleithy

Teaching Assistant:
AL. Omar Alkady

Nano-Formulation and Pharmacological Evaluation of Antiaging Herbal Products

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ABSTRACT

Skin aging is a complex of biological process which affected by constant exposure to ultraviolet (UV) irradiation with subsequent generation of reactive oxygen species leading to collagen deficiency and eventually skin wrinkling. Different techniques were reported for treatment; however the application of anti-aging creams is still the best choice among various treatment methods to their nourishing effect. Apart from that herbal formulation has widely demanded in the world market for its safety. In the present study lipid nanoparticles (LNPs) are used in the formulation of anti-aging Citrus Sinensis (CS) cream due to its safety and biocompatibility of its lipid components. Eight different formulations of CS-LNPs were prepared and optimized using 23 full factorial designs. Three factors were evaluated: drug concentration (X1), homogenization speed (X2) and nanoparticle type (X3). Different parameters were investigated including; zeta potential (ZP), polydispersity index (PDI), particle size, entrapment efficiency (EE %) and skin occlusion test. Morphological study by using transmission electron microscopes (TEM) confirms the nano-metric size of the prepared formulations with spherical and smooth surface. It was suggested that the optimized formulation (F7) was found to have (245nm) particle size, (91.065%) Entrapment Efficiency and (91.385%) Occlusive effect. In vitro permeation study of the optimized formulation through synthetic membrane showed prolonged release of medication within 24 hrs. The visible appearance of UV induced wrinkles in Swiss albino mice were significantly improved after topical application on CS-NLC cream for 5 week, level of collagen and superoxide dismutase (SOD) was significantly increased, while levels of PGE2, COX2, JNK, MDA and elastin was reduced.

شيخوخة البشرة هي عبارة عن مجموعة من العمليات البيولوجية التي تتاثر بالتعرض المستمر للأشعة فوق البنفسجية ومما ينجم عنه لإحقا من تكوين لذرات الأكسجين التفاعلية فيؤدي إلى حدوث نقص في الكولاجين وتنتهي بتجعُّد البشرة

Supervisor:
Dr.Reham Omar
Dr. Amira Hashad

Teaching Assistant:
TA. Pakinam Zikry

Formulation and Characterization of Novel Supermagnetic Solid Lipid Nanostructure Lipid Carriers In-Situ'nasal Gel For Zolmitriptan Brain Targeting

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ABSTRACT

Nanotechnology development started from 20th century. It has the ability to deliver a small molecular weight drugs also the ability to targeting to cells and tissues by macromolecules such as genes, peptides and proteins. Solid lipid nanoparticles (SLNs) are defined as colloidal particles which is characterized by small particle size, ability to change surface properties and large surface area that facilitates the bioavailability of poorly water soluble molecules also improving the penetration of the drug into the skin and providing the stability. Magnetic nanoparticles (MNPs) are a special type of NPs that is characterized by high magnetic susceptibility which validate it to be used in biomedical application. The particle size should be small and the MNPs must have a high magnetization to facilitate its motion in the blood vessels with an external magnetic field. Zolmitriptan is a selective serotonin receptor agonist which is effective in reducing migrane symptoms. The purpose of the study is to prepare supermagnetic solid lipid nanostructure lipid carrier of zolmitriptan to enhance its bioavailability and to develop SLNs containing zolmitriptan. The objectivities are achieving maximum bioavailability, achieving better solubility and achieving controlled sustained release of the drug. In this study, 6 formulas were prepared with different ratios and were evaluated for their particle size with a range of (205.8_ 469.5 d.nm) and zeta potential with a range of (-14.0_ -20 mv) and the entrapment efficiency were (58%_55%).Formula number 4 were the best as it had the slowest release. Further pharmacological intervention on rat's brain will be investigated.

بدا تطوير تقنية النانو من القرن العشرين. لديها القدرة علي تقديم عقاقير صغيرة الوزن الجزيئي وكذلك القدرة على استهداف الخلايا والأنسجة بواسطة الجزيئات الكبيرة مثل الجينات والببتيدات والبروتينات.

Supervisor:
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Improving Dermal Delivery of the Ketoconazole Via Loading into Bilosomal Vesicles.

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ABSTRACT

The goal of our research was to encapsulate a medication called ketoconazole which is insoluble in water and antimycotic drug into a new nano-vesicle called bilosomes for attaining enhanced dermal delivery. The bilosomes is formulated from span 60, bile salt and cholesterol. In this study ketoconazole was loaded into bilosomes using a technique called ethanol injection method. As stated in 23 full factorial design that is to say eight formulations form B1 to B8. The examination of the effect of variable preparations variables on bilosomes characteristics and choice of the perfect preparation was done by the utilization of a program called Design Expert®. The chosen bilosomal preparation (B8 constitutes of 112.5 milligrams of span 60,37.5 milligrams of cholesterol and 40 milligrams of bile salt which is sodium cholate). Results has shown that the perfect preparation showed greater in vivo pass of the drug through the skin of the wistar rats while compared with the traditional nano vesicles like niosomes, and the suspension of this medication. Later on, in the histopathological, vivo skin studies done using male wistar rats has showed that the formulated bilosmal carrier is safe to be applied on the skin. Generally, the attained results established that bilosomal carrier could be a promising carrier for the skin delivery in the future.

كان الهدف من بحثنا هو تغليف دواء يسمى الكيتوكونازول وهو غير قابل للذوبان في الماء والعقاقير المضادة للبكتيريا في حويصلة نانوية جديدة تسمى البيلوسومات للوصول إلى الولادة الجلدية المعززة.

Supervisor:
Dr. Abdel Aziz Mohsen

Teaching Assistant:
TA. Pakinam Zikry, TA. Dalia Alkhayat

Design of Novel Potential Protease Inhibitors for the Treatment of HIV

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ABSTRACT

Human immunodeficiency virus (HIV) is a serious infection that progressively destructs the human immune system. Protease enzyme is a very important enzyme in the life cycle of the HIV and its replication. The Protease inhibitors are classified as one of the important classes in HIV treatment as they decrease the protease enzyme of the HIV. However, they have shown a risk in causing insulin resistance and leading to diabetes mellites due to their high affinity to GLUT4. Consequently, we tried to design novel protease inhibitors that have reduced affinity to GLUT4 and exhibit low incidence of insulin resistance. For such design to be developed, computer-based drug design methods were used. Using MOE program, the protease enzyme was primarily docked in itself for validation and then protease inhibitors were docked in it to observe the energy values and interactions. Then, protease inhibitors were docked in GLUT4 homology model -created on SwissModel- to explore their interactions with it and to identify interactions responsible for binding to GLUT4 causing insulin resistance. For the lead optimization step Darunavir and Ritonavir were chosen. O22 in Darunavir was changed to CL22 while N5 in Ritonavir was changed to S5. These changes lead to significant variation in the affinity of the drugs to both protease enzyme and GLUT4, increasing the affinity to protease enzyme and decreasing it to GLUT4.

فيروس نقص المناعة البشرية (HIV) هو عدوى خطيرة تدمر جهاز المناعة البشري بشكل تدريجي .إنزيم البروتياز هو إنزيم مهم للغاية في دورة حياة فيروس نقص المناعة البشرية وتكراره .

Supervisor:
Dr. Rana Hosny

Teaching Assistant:
T.A.Aya Elashry

Multifunction of Gold Nanoparticles Loaded with Radioactive Iodine-131 for Solid Tumor Imaging and Treatment

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ABSTRACT

Cancer is one of the greatest threats worldwide. We will be discussing its definition, causes, types, mechanism, and methods of diagnosis & treatment. Nanomedicine is described as the shining light that will help us increase diagnosis, imaging, organ and tissue regeneration and targeted drug delivery using quantum nanoparticle mechanics. Nanomedicine is an effective solution for cancer treatment due to providing the maximum possible killing efficacy of cancer cells with minimum side effects to normal healthy cells. Radio pharmacy is the field of radioactive nucleotides that deals with diagnosis and treatment of diseases. Nuclear pharmacy is the use of radiopharmaceuticals for therapeutic and diagnostic applications. There are various applications of radiopharmaceuticals in the diagnosis and detection of different diseases that will be discussed. The use of radionuclide therapy in the treatment of various cancers via α-emitting, β-emitting, and Auger-electron emitting radionuclides. Therefore, our aim is merging of nanomedicine and nuclear pharmacy to achieve our objective which is to decrease side effects and dose, increase efficiency of treatment, and target cancer stem cells. Our methodology includes preparing nano-sized gold particles and then loading them with radioactive iodine (I^{131}), the characterization testing will be done in collaboration with Egyptian Petrol Research Institution, Al-Azhar University, and Nawah Scientific. The biology testing will be done in corporation with Egyptian Atomic Energy Authority.

السرطان هو احد اعظم التهديدات في جميع انحاء العالم. سنناقش تعريفه واسبابه وانواعه وآلياته وطرق التشخيص والعلاج. يوصف الطب النانوي بأنه الضوء الساطع الذي سيساعدنا على زيادة كفاءة التشخيص والتصوير وتجديد الأعضاء والأنسجة وتقديم الأدوية المستهدفة باستخدام ميكانيكا الجسيمات النانوية.

Supervisor:
Dr. Tamer Sakr

Teaching Assistant:
AL. Emad Seif

Anti- Hyperglycemc Activity Evaleuation and Chemical Profiling of Edible Pericarp of Phaseolus vulgaris

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ABSTRACT

Diabetes is considered a serious metabolic disorder characterized by high Blood glucose level due to absolute insulin deficiency or complete destruction of pancreatic beta cells (Type 1 diabetes) and beta cells receptors resistance (Type 2 DM). Diabetes complications are peripheral vascular diseases, coronary vascular diseases and sexual dysfunction. Conventional drugs like biguanides, SUs and insulin cause adverse effects and have high cost .Nowadays, herbal drugs are used due to their natural origin and affordable cost. The study aims to evaluate the antidiabetic activity of phaseolus vulgare L pericarps. Diabetes was induced through a single IP injection of 55 mg /kg of STZ and rats was randomly divided into 6 groups each contain 6 rats Group 1: Normal control (received saline), Group 2: Diabetic control, Group 3: Diabetic group received standard drug glibenclamide (600 ug /kg P.O.) , Group 4: Diabetic group received non polar fraction of phaseolus vulgaris extract (200 mg P.O.), Group 5: Diabetic group received MSCs (106 cell /rat IP) and Group 6 : Diabetic group received both NPF phaseolus vulgaris and MSCs. Phaseolus vulgaris significantly decreases glucose level , MDA, cholesterol and TGs ($P<0.005$) and significantly increases insulin level , Nitric oxide (NO) and HDL ($P<0.005$).While stem cells group significantly decreases glucose level, MDA ($P<0.005$) and slight decrease in cholesterol and no significant decrease in TGs .Combined group shows low glucose & MDA level and increase in insulin , nitric oxide and HDL level . The study showed that NPF phaseolus vulgaris (200mg /kg), stem cells and combined (stem cells and Phaseolus) have antidiabetic activity .

تقييم النشاط المضاد لفرط سكر الكيميائي لنبات البريكارب الصالح للاكل من Phaseolus vulgaris الدم والتوصيف

Supervisor:
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The Effect of Modulation of RNA Expression on Myocardial Infarction

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ABSTRACT

Myocardial infarction (MI) is myocardial cell death due to severe and prolonged ischemia produced from atherosclerosis-related coronary artery disease. MI triggers a cascade of events and reparative phases end with myocardial cell necrosis. MicroRNA (miR) is non-coding single stranded RNA that regulates protein expression. miR-103 is used to regulate expression of Fas-associated death domain (FADD) which decreases necroptosis of ischemic myocardium. The study aims to investigate the modulatory effect of up-regulating mRNAs translation processes of myocardial infarction induced with isoprenaline HCl 100 mg/kg (ISO) by injecting miR-103 inhibitor. Eighteen mice (15-25 gm) were allocated into three groups; Group A (control) received normal saline, Group B received ISO and Group C received ISO and miR-103 inhibitor. Mice were sacrificed by cervical dislocation under urethane anesthesia. Blood and hearts samples were collected for biochemical analysis of miR103, FADD, RIPK, IL-6 and Troponin-I. In addition, hearts were used for histopathological examination. Results showed that administration of miR-103 antagomir leads to increase in FADD protein levels in group C compared to A and B. While miR-103, RIPK, and IL-6 showed high levels of expression in group B that is attenuated in group C. Troponin-I also supported the previous results. Histopathological examination showed normal histological structure in groups A and C while focal degeneration in myocardium in B. Accordingly, these results indicate a promising suppression of MI manifestations upon inhibition of miR-103.

تاثير تعديل تعبير RNA على احتشاء عضلة القلب

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Nanoformulation and Pharmacological Evaluation of Antiaging Herbal Product

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ABSTRACT

Wrinkles are creases, folds, or ridges in the skin. After the age of 20, the skin begins to lose over time its elasticity, firmness and collagen fibers. Accordingly, wrinkles tend to occur in the areas of muscle contraction. Citrus sinensis L. belonging to family Rutaceae are widely consumed in Egypt. Citrus peels are the most important by-product of Citrus fruits. They are major sources of phenolics specially flavanones and their glycosides, which are a powerful natural antioxidant that may possess an anti-wrinkles activity. The aim of this project is to characterize the major metabolites in the 95% ethanolic extract of C. sinensis fruits peels and evaluate its antioxidant and anti-wrinkles activities. The HPLC analysis of the extract revealed that the major compounds were hesperidin and quercetin. The extract was characterized also via HPLC-MS-MS, the analysis revealed that sesamolinol and hesperidin were the major identified constituents. The antioxidant activity was evaluated using ORAC assay and the extract showed promising antioxidant activity. The in vitro anti-wrinkles activity of the extract was evaluated by screening their inhibitory activity on elastase and collagenase enzymes, the extract showed good inhibitory activity with IC50 values of 299.04 µg/ml and 188.61µg/ml respectively, which is close to the tested standards Elafin and EGCG (IC50 250.09 and 112.12 µg/ml). Thus, C. sinensis fruits peels extract can be used to develop a completely natural anti-aging herbal product with antioxidant and anti-wrinkles properties in the cosmo-ceutical market.

النانوفورم والتقييم الدوائي لمضادات العشبية المضادة للشيخوخة

Supervisor:
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Antidiabetic Activity of Plants Belong to Family Lythracea

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ABSTRACT

Diabetes mellitus is a chronic disorder which occurs due to deficiency of insulin leading to hyperglycemia with serious complications. So controlling blood glucose level is essential however synthetic drugs lead to serious adverse effect especially during pregnancy. So it has become our interest to find natural plant sources with similar antidiabetic activity but with lower side effect compared to synthetic drugs. Many plants belong to family Lythraceae have been previously reported for their antidiabetic activity due to their high phenolic content which have been reported to have antioxidant activity and the onset of diabetes is related to the increased oxidative stress. In view of this fact, a lot of Lythraceous plants have become our interest to estimate its in vitro antidiabetic activity and trying to find about the plant extract with the highest activity in order to investigate its in vivo antihyperglycemic effect. Ammannia aegyptiaca Willd. showed the highest pancreatic lipase, α- amylase and β-glucosidase inhibitory effect. In addition, it showed the highest free radical scavenging activity on (DPPH) and (ORAC) assay with the highest total phenolic and flavonoid contents. erimenting on animals has been one of the effective strategies to develop new drugs, thus the in vivo antihyperglycemic effect was evaluated for the EtOH extract of this plant in STZ-induced diabetic male albino Wistar rats. Where, EtOH extract showed significant antihyperglycemic effect and its metabolic profiling was studied using LC-MS.

داء السكري هو اضطراب مزمن يحدث بسبب نقص الانسولين مما يؤدي إلى ارتفاع السكر في الدم مع مضاعفات خطيرة. لذا فإن التحكم في مستوى الجلوكوز في الدم ضروري ولكن الأدوية الاصطناعية تؤدي إلى تأثير سلبي خطير خاصة أثناء الحمل. و لذلك جرى بحث عن تأثير النباتات المتمية لاسرة ال Lythracae على مستوى السكر بالدم

Supervisor:
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Anticancer Potentiality of Phenolics from Oats (Avena sativa L.) and their Derivatives

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ABSTRACT

Cancer became serious disease nowadays worldwide, because of the many adverse effects chemotherapy and radiation therapy people tend nowadays to use natural herbs in treatment, Oats (Avena sativa L.) is the concerned herb in this study as it contains antioxidants compounds because of that it may have anticancer activity. It was extracted using 80% ethanol, fractionated over diaion column to produce three fractions: 100% water fraction, MeOH-Water (1:1) fraction, 100 % Methanol fraction. Total phenolics were found to be 71.37± 2.81, 72.18 ± 0.14 and 106. 49± 0.51 in water, 50% methonal and methanol fraction. Total flavonoids were found to 6.47 ± 0.04, 10.25 ± 0.04 and 12.63± 0.1 in water, 50% methonal and methanol fraction using Gallic acid equivalent and Quercetin equivalent. Purification of the fractions yielded caffeic acid and ferulic acid, which were identified using 1H NMR and 13C NMR. Ferulic and caffeic acids were tested for their anticancer activities on different human cancer cell lines. Different derivatives were prepared from ferulic and caffeic acids and were evaluated for their anticancer activity.

اصبح السرطان مرضًا خطيرًا حاليًا في جميع انحاء العالم ، نظرًا للعديد من الاثار الضارة للعلاج الكيميائي والعلاج الإشعاعي الذي يميل الناس إليه في الوقت الحاضر على استخدام الأعشاب الطبيعية في العلاج ، يعتبر الشوفان (Avena sativa L.) هو العشبة المعنية في هذه الدراسة لأنه يحتوي على مركبات مضادة للأكسدة بسبب ذلك قد يكون النشاط المضادة للسرطان.

Supervisor: Prof. Shahira Ezzat

Teaching Assistant: TA. Mai Gohar

Antihyperglycemic Activity Evaluation and Chemical Profiling of the Edible Pericarps of Phaseolus vulgare L.

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ABSTRACT

The objective of our study is to find a scientific evidence for the traditional use of *Phaseolus vulgaris* L. In addition, to evaluate the effect of the combination between the plant extract and mesenchymal cells on type I diabetes. the social significance of diabetes mellitus lies in its significant prevalence together with the associated serious complications. To facilitate the course of diabetes and its complications medicinal plants derived from different traditional systems are now excessively investigated for their effectiveness. One of such plants is *Phaseolus vulgaris* L. This plant is used in traditional medicine, for treatment of diabetes and its complications. the *in vivo* antihyperglycemic effect of the polar and non-polar fractions of the 95% ethanol extract of the dried powder of *P. vulgaris* pericarps were evaluated. The fractions were administered daily for 28 days in an oral dose of 100 and 200 mg/kg b.w. in STZ-induced diabetic rats. Another experiment was conducted in STZ-diabetic rats in which the non-polar fraction was again tested at its effective dose 200 mg/kg alone and in combination with intraperitoneal injection of bone marrow derived mesenchymal cells (1000.000 cells/rat i.p). The secondary metabolites of both polar and non-polar fractions of *P. vulgaris* pods were analyzed using LC-MS/MS analysis to have a full picture of their composition. the non-polar fraction at 200 mg/kg showed the highest activity as it caused maximal reduction of serum glucose, total cholesterol, total triglycerides, and a significant increase in serum insulin and high density lipoprotein (HDL). The antidiabetic effect of the non-polar fraction of *P. vulgaris* was highly augmented when injected together with the mesenchymal cells. our work provides a scientific base for the antidiabetic effect of *Phaseolus vulgaris* L. pericarps which is mainly attributed to its insulin secretagogue effect.

تقييم النشاط الخافض لنسبة السكر في الدم والتوصيف الكيميائي لبيريكاربس الصالح للاكل لنبات الفاضوليا

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Natural Herbs Used for Skin Care

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ABSTRACT

Aging is an inevitable process for all living organisms. During this process reactive oxygen species generation is increased which leads to the activation of hyaluronidase, collagenase and elastase, which can further contribute to skin aging. So the maintenance of antioxidant homeostasis is important strategies for skin anti-aging. Nature has an excellent anti-aging remedies that acts externally whereas internally to delay aging signs. In view of this fact, the present study investigates the *in vitro* anti-aging activity of 12 Egyptian medicinal plants belonging to phenolic rich families. The total phenolic contents of the aqueous and 95% ethanol extracts of the aerial parts of the tweleve plants were determined spectrophotometrically using Folin Ciocalteu reagent. The ethanolic and aqueous extracts of Rosemary (*Rosmarinus officinalis* L.) showed the highest content (490.60 ± 0.55 and 470.88 ± 0.41 µg gallic acid equivalent/mg extract, respectively) followed by the ethanolic and aqueous extracts of green tea (467.30 ± 0.75 and 455.76 ± 0.49 µg gallic acid equivalent/mg extract, respectively). The inhibition capabilities of the extracts on tyrosinase, elastase, hyaluronidase and collagenase enzyme activities were determined using spectrophotometric methods. Our extracts showed significant inhibition of the tested enzymes. The ethanolic extract of Rosemary showed the highest inhibition activity for all enzymes (180.40±3.49, 45.5±1.69, 35.52± 2.18 and 210± 3.44 µg/mL, respectively). The total antioxidant capacity (TAC) by ORAC and DPPH, were also determined where all the extracts showed significant results. The chemical composition of the most active extract was studied using LC-/MS analysis. Our herbs can restore skin elasticity and thereby slow the wrinkling process. In addition, Rosemary was studied for its anti-aging benefits as the aerial parts are rich in antioxidants. By using Rosemary ethanolic extract in various ratios a cream was prepared and characterized for its physical properties. The best formula was optimized which has been evaluated for anti-aging activity using animal models and the results were compared with the standard. The results showed that the cream formulation was found efficient. This shows that the Rosemary has a good anti-aging activity and don't showed any irritant effects on skin.

تصنيع منتجات للعناية بالبشرة من مستخراجات الاعشاب الطبيعية

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Anti-Obesity Activity of the Aqueous Extract of Moringa olifera Herbal Tea Family Moringaceae

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ABSTRACT

Obesity is a serious disease, means specifically to have an abnormal high proportion of fat, It is a common complex, multifactorial dependent and largely preventable disease. This metabolic disease results from lack of physical activity, excessive eating, gall stone, frequency of pregnancy, physiological factors or it may be inherited. If it left untreated it may lead to serious complications such as cardiovascular, lung diseases, arthritis and cancer. Nowadays people tend to replace conventional methods of treatment including drugs and surgeries with herbal medicine due to its effective cost and reduced side effects. One of the effective herbal plants is *Moringa oleifera* Lam. (Moringaceae).The aim of this study is to conduct a phytochemical investigation of aqueous extracts of *M. olifera* herbal teas as *M. olifera* alone, *M. olifera* with lemon peels and *M. olifera* with Mentha leaves. In addition to evaluate their anti-obesity and antihypercholesterolemic activities in a high fat diet induced obesity model in rats. Chromatographic analyses using LC-ESI-MS-MS apparatus revealed that the common major compounds found in *M. olifera* alone, *M. olifera* with lemon peels and *M. olifera* with Mentha leaves extracts were Quercetin , Spiraeoside and L-Phenylalanine. This in vivo study was tested using daily oral doses of 200 mg/kg and 400 mg/kg for 1 month and compared to Simvastatin. All extracts possessed a good antiobesity activitv.

تاثير مستخرج عشب المورينجا على علاج السمنة المفرطة

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Design, Synthesis and Biological Activity of Phenolic Derivatives of Oat Active Constituent

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ABSTRACT

Caffeic .nacid is a phenolic kcompound that can produced mnaturally in plants such as oat, ,vegetable, fruit and ecoffee bean. srIt can be obtained by sextraction method or ssynthesized in two wayss first the reaction of s Horner–Wadsworth–Emmons (HWE). The second realizes shortenings of Knoevenagel and aldol. It has a variety of activity such as antimicrobial ,e anti-inflammatory , anti-viral , eantioxidant and eanticancer activity. It is mainly used in the form of eester to give the anticancer activity such as caffeic acid phenyl ester (CAPE). it can treat many types of cancer such as lung ,colon ,prostate, leukemia and melanoma ,it acts as antioxidant eby two mechanisms free radical scavengers and sometimes as metal chelators and acts as anticancer by inhibiting the nucleotideturnover salvage pathway , eaddition of peroxide to lipid, strand of eDNA break, divisions of protein and it inhibits e5-lipoxygenase eenzyme by a whole non-competitive emechanism. Our goal is to design new derivatives of caffeic acid, synthesis of derivative of caffeic acid and test the biological activity of the enewly synthesized compounds against cancer cell lives. Caffeic amide derivatives were expected to be synthesized through formation of the acid chloride using POCL3 followed by amide formation with the help of the respective amine. Due to the insolubility of the formed ecaffeic acid chloride another method was devised using DCC to directly couple the amine with caffeic acid. 4-hydroxyanaline, Ptoluidine, Cyclohexyl amine and M-toluidine amines used to esynthesis different amide derivatives of caffeic acid.

تصميم وتوليف ونشاط بيولوجي لمشتقات الفينول للمواد الفعالة بالشوفان

Supervisor:
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Design, Synthesis and Biological Activity of Semisynthetic Phenolic Acid Analogues

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ABSTRACT

Ferulic acid (4- hydroxy-3-methoxycinnamic acid) is derived from natural source, consequently it has low Toxicity. It is one of the most abundant phenolic acids in plants. Ferulic acid has shown anticancer activity in various types of cancers. Large amounts of hydrogen peroxide are produced and secreted by tumour cells, which are responsible for spreading and invasion of the tumour. Anti-cancer activity of Ferulic Acid is related to its antioxidant property by inhibition of oxidative enzyme, enhancement of cyto-protictive enzymes and acting as free radical scavenger. Ferulic acid structure has phenolic ring which act as free radical scavenger by its hydrogen donating ability. The presence of p-hydroxyl groups in aromatic ring, meta methoxy group and conjugated double bond are essential for activity. The aim of the project is to design and synthetize ferulic acid derivatives with potential anticancer activity. The amide derivatives of ferulic acid were synthetized by the reaction between ferulic acid and the different amines using DCC and THF. Purification of the compounds was done using column chromatography which is conducted by the pharmacognosy department and characterization was done using IR spectroscopy and proton NMR. Compounds were screened for anticancer activity against caco cell lines where they showed a significant anticancer activity

تصميم ، التوليف والنشاط البيولوجي من نظائر حمض الفينول شبه الاصطناعية

Supervisor:
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Study on the Antibiotic Resistance of Probiotics Recovered from Products in the Egyptian Market

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ABSTRACT

Probiotics have proven its efficacy in improving digestion, prevention of colon cancer and improving lactose intolerance. However, throughout the last decade the emerging crisis of antibiotic resistance arouse and threatened the use of probiotic, since their ability to act as reservoir for transferable antibiotic resistance genes. This study aims at identification and characterization of the transmissible antibiotic resistance genes in *Lactobacillus* sp. isolated from products in the Egyptian Market. Twenty four dairy products were collected from factories, and milk shops then Lactobacillus *s*p. were isolated from samples on MRS agar. The antimicrobial susceptibility of isolates were measured by determining the minimum inhibitory concentration against chloramphenicol, tetracycline, and erythromycin by microbroth dilution method. Twenty four Lactobacillus sp. isolates were recovered from samples including *Lactobacillus acidophilus* and *Lactobacillus casei. Lactobacillus* sp. isolates showed highest resistance towards chloramphenicol followed by erythromycin and tetracycline. Tetracycline resistance were higher in dairy products from factories 33% (3/9) than those obtained from milk shops 18.1 % (2/11). The chloramphenicol resistance transferable gene (*cat)* was detected in (5/22) 22.7% of chloramphenicol resistant isolates; Transferable erythromycin resistance genes (*ermB*) and (*ermC*) genes were detected in (1/13) 7.69% and (4/13) 30.7% of erythromycin resistant isolates. The prevalence of tetracycline resistance genes *tet M, tet O, tet W, tet K,* and *tet L* genes were 28.5%, 14.28%, 0%, 14.28 % and 20%, respectively. In conclusion, *Lactobacillus* sp. In Egyptian dairy products can act as a potential reservoir for antibiotic resistance gene which highlight the importance of screening this beneficial bacteria for antibiotic resistance and minimizing antibiotic consumption in dairy animals.

اثبتت البروبيوتيك فعاليتها في تحسين عملية الهضم والوقاية من سرطان القولون وتحسين عدم تحمل اللاكتوز. ومع ذلك ، طوال العقد الماضي ، تبرز أزمة مقاومة المضادات الحيوية الناشئة وتهدد باستخدام البروبيوتيك ، نظرًا لقدرة بكتريا البروبيوتك على العمل كخزان لجينات مقاومة المضادات الحيوية القابلة للنقل

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Molecular Characterization of Hypervirulence Phenotype-Associated Traits among K.pneumoniae Isolates in Egypt

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ABSTRACT

Background and Aim: Klebsiella pneumoniae is a Gram-negative and an enteric opportunistic bacterial pathogen. It includes classical (cKP) strains which cause hospital-acquired (HA) infections, particularly among immunocompromised patients, and hypervirulent (hvKP) strains that cause invasive community-acquired (CA) infections in immunocompetent individuals. The hvKP strains have been attributed to expression of hypermucoviscous phenotype. Recently, hvKP infections are progressively reported globally not only for CA infections but also for HA infections with increasing morbidity and mortality rates. This project aimed to study the prevalence of hypermucoviscous phenotype among clinical isolates of K. pneumoniae from hospitals in Egypt, and investigate the hypermucoviscosity related factors. Methods: The isolates were identified phenotypically by various biochemical tests and confirmed genotypically using a specific primer set. The hypermucoviscosity phenotype was detected by using string test. Eleven different genes that are potentially associated with the phenotypes of hypermucoviscosity and hypervirulence were investigated by PCR. The biogram antimicrobial susceptibility was evaluated for the isolates against thirteen antimicrobial agents using Kirby-Bauer disc diffusion method. The isolates were tested by ERIC-PCR for fingerprinting. Statistical analysis was conducted using Chi-square. Results: According to string test, hypermucoviscous isolates were 40% of collected isolates. Antimicrobial susceptibility study showed that 73% of hypermucoviscous isolates were MDR while 64% of non-hypermucoviscous isolates were MDR. The PCR assay results for Capsular serotype K2 gene showed that it is harbored by 68% of hypermucoviscous isolates while 7% only by non-hypermucoviscous isolates. Statistically there is no significant difference in all tested attributes between the cKP and hvKP isolates except for K2 gene. Conclusion: The antimicrobial resistance is not corresponded to the hypermucoviscosity phenotype. Resistance to carbapenems is a common feature among K. pneumoniae strains in Egypt. K2 gene is highly related to the hypermucoviscosity phenotype. This study show evidence that the hypermucoviscosity phenotype is not restricted only to the hypervirulent strains.

يهدف هذا المشروع إلى دراسة مدى انتشار النمط الظاهري مفرط المخاطية بين العزلات السريرية pneumoniae K. من المستشفيات في مصر ، والتحقيق في العوامل المرتبطة فرط المخاطية.

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