Cairo University

Cairo University

The Best Theses Awards

CUBTA 2013

Issue 6
Academic year
2011 - 2012

Cairo University

The Best Thesis Awards

Academic Years 2011 – 2012

Issue VI

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Preface

As part of Cairo University's plan to enhance research and researchers, our institute annually selects the best theses in all its faculties, and provides awards to the authors and supervisors of the best theses published in areas of relevance to the university's research plan. As a research institute, we should encourage new thinking and the Best Thesis Award is an excellent example of encouraging change and critical analysis of the tools & processes that underline our research. The University Best Thesis Award aims to encourage and reward the postgraduate researcher's exceptional achievement in producing a thesis.

This issue provides a valuable resource for the abstracts of best theses (M.Sc., M.D. and Ph.D.) for the academic year 2011-2012. It provides guide for researches to the relevant field, and for other scientists seeking detailed background information on special questions. Finally, it provides a documentation of the valuable contributions made by today's younger generation of scientists.

Prof. Gamal Essmat

Vice - President for Post-graduate Studies and Research
Cairo University

Prof. Gaber Nassar

President
Cairo University

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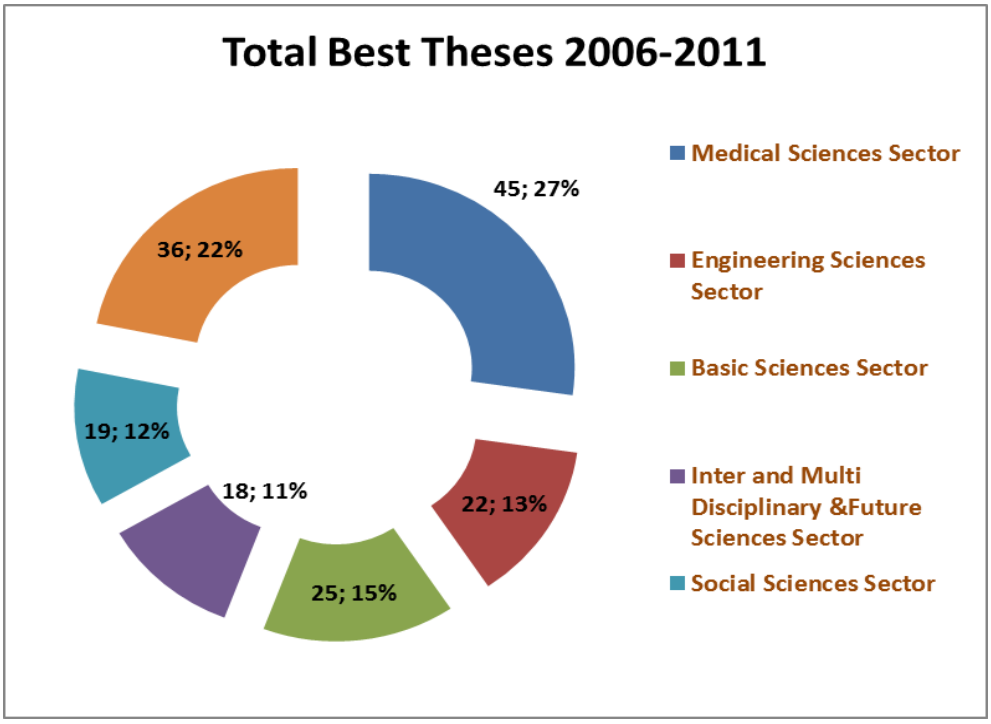
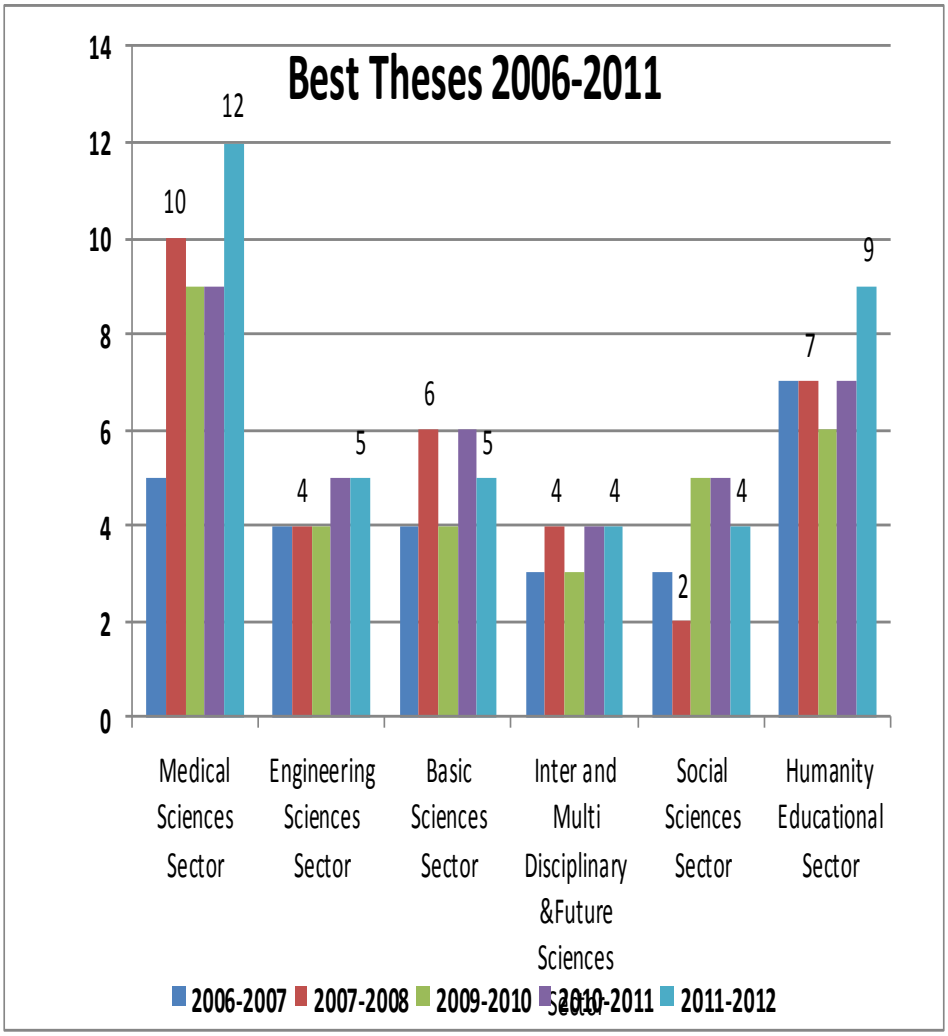
Statistics

Faculty in Year 2011-2012	Ph.D.	M.Sc.
Medical Sciences Sector	**11**	**12**
Medicine	**3**	**4**
Oral and Dental Medicine	**2**	**2**
Pharmacy	**1**	**1**
National Cancer Institute	**3**	**2**
Physical Therapy	**1**	**1**
Nursing	**1**	**2**
Engineering Sciences Sector	**3**	**5**
Engineering	**1**	**2**
Urban and Regional Planning	**1**	**2**
Computer and Information	**1**	**1**
Basic Sciences Sector	**5**	**5**
Science	**2**	**2**
Agriculture	**2**	**2**
Veterinary Medicine	**1**	**1**
Inter and Multi Disciplinary &Future Sciences Sector	**5**	**4**
National Institute Laser	**1**	**1**
African Studies Institute	**3**	**2**
Institute of Statistical Studies and Research	**1**	**1**
Social Sciences Sector	**5**	**4**
Law	**2**	**1**
Commerce	**1**	**1**
Mass Communication	**1**	**1**
Economics and Political Sciences	**1**	**1**

Faculty in Year 2011-2012	Ph.D.	M.Sc.
Humanity Educational Sector	**10**	**9**
Arts	**2**	**2**
Archaeology	**2**	**1**
Dar El-Ulum	**1**	**1**
Kindergarten Education	**2**	**1**
Specific Education	**1**	**2**
Institute of Educational Studies	**2**	**2**
Total	**39**	**39**

	2006-2007		2007-2008		2009-2010		2010-2011		2011-2012	
Faculty	**M.Sc.**	**Ph.D.**	**M.Sc.**	**Ph.D.**	**M.Sc.**	**Ph.D.**	**M.Sc.**	**Ph.D.**	**M.Sc.**	**Ph.D.**
Medical Sciences Sector	5	7	10	12	9	10	9	10	12	11
Engineering Sciences Sector	4	3	4	2	4	4	5	4	5	3
Basic Sciences Sector	4	4	6	7	4	6	6	6	5	5
Inter and Multi Disciplinary &Future Sciences Sector	3	2	4	1	3	2	4	4	4	5
Social Sciences Sector	3	4	2	4	5	6	5	6	4	5
Humanity Educational Sector	7	8	7	9	6	7	7	8	9	10
Total	26	28	33	35	31	35	36	38	39	39




Best Theses 2006-2011
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Medical Sciences Sector
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Medical Sciences Sector

- Medicine
- Oral and Dental Medicine
- Pharmacy
- National Cancer Institute
- Physical Therapy
- Nursing

Name **:** **Shaimaa Nasr Amin Mohamed**

Faculty **:** **Medicine**

Dept. **:** Physiology

Degree **:** Ph.D.

Title of Thesis: Assessment of Cognitive Functions and Some Markers of Synaptic Plasticity in Diabetic Rats

Supervisors : Dr. Ibrahim Mohammedy Ibrahim and Dr. Sandra Mourad Younan

Abstract :

Cognitive dysfunction is a common complication of diabetes mellitus however, less addressed and recognized. This study aimed to investigate the effect of type 1 and 2 diabetes on cognitive functions and related markers of hippocampal synaptic plasticity and the possible impact of blocking N-methyl-d-aspartate (NMDA) receptors by memantine. Seven rat groups were included in this study: non-diabetic, non-diabetic-memantine, type 1 diabetic groups: Untreated, treated with insulin alone and treated with insulin and memantine and type 2 diabetic groups: untreated and memantine treated. Cognitive functions were assessed by Morris Water Maze and passive avoidance test and immunohistochemistry was used for detection of hippocampus pre and post-synaptic markers: synaptophysin and postsynaptic density protein-95(PSD-95) respectively, learning and memory plasticity marker: activity regulated cytoskeletal associated protein (Arc) and the astrocytes reactivity marker: glial fibrillary acidic protein (GFAP). Both type 1 and 2 untreated diabetic groups showed significantly impaired cognitive performance with concomitant decrease in synaptophysin and PSD-95 compared to the non-diabetic group. In addition type 2 group showed a significant decrease in hippocampus GFAP and Arc compared to the non-diabetic group. Treating type 1 diabetic group with insulin alone significantly improved cognitive performance and PSD-95 and significantly decreased GFAP and Arc compared to untreated type 1 group. Blocking NMDA receptors by memantine (30 mg/kg/day) for 3 weeks significantly increased cognitive performance, synaptophysin, GFAP and Arc in type 1 insulin-memantine group compared to type 1-insulin

group and significantly increased synaptophysin, PSD-95 and Arc in type 2-memantine group compared to untreated type 2 diabetic group. In conclusion, cognitive functions are impaired in both types of diabetes mellitus and can be improved by blockage of NMDA receptors which may spark future therapeutic role of these receptors in diabetes-associated cognitive dysfunction.

Keywords:

Cognitive functions; Glial fibrillary acidic protein; Synaptophysin; Postsynaptic density protein-95; Activity regulated cytoskeletal associated protein.

Name	**:**	**Ahmed Mohamed Fahmey El-Damaty**
Faculty	**:**	**Medicine**
Dept.	**:**	Cardiology
Degree	**:**	Ph.D.
Title of Thesis:		Quantitative Measurements Comparing Body Surface Potentials During Pace Mapping and Spontaneous Ventricular Tachycardia
Supervisors :		Dr. Adel Zaki Ghonima, Dr. Khaled Ali Hassan Sorour and Dr. Hussein Hassan Risk

Abstract :

Background: Catheter ablation of recurrent ventricular tachycardia (VT) in patients with structural heart disease is challenging, in the majority of these patients, a substrate-based approach using pacemapping and guided by body-surface electrocardiograms (ECGs) is used. Our aim was to develop a computational method for localizing the origin of ventricular activation from the 12-lead ECG and/or from the body surface potential mapping (BSPM) data. **Methods and Results:** For 18 consecutive consenting patients who underwent ablation of scar-related VT, BSPM data (120 ECG leads, including the standard 12 leads) were recorded during pacing at 266 left-ventricular endocardial sites identified on three-dimensional electroanatomic maps, and each site was associated with one of the 16 anatomical segments. BSPM data corresponding to these sites constituted a design set for generating characteristic ECG templates for each segment, consisting of time-integrals of the entire QRS (∫QRS) or of the trimmed QRS (e.g. initial 120 ms, denoted as ∫QRS120), for either 12 or 120 leads. ECG patterns were matched with pre-determined templates, using the correlation coefficient (CC) or mean absolute deviation (MAD) as metrics. Localization accuracy (percentage correct hits by the first-ranked segment and by those ranked as first/second and first/second/third. The ∫QRS120 templates correctly ranked the pacing segment as the first, first/second, and first second/third in 52%, 76%, and 87% of cases, respectively, for 12-lcad templates, while localization accuracy of the 120-lead ∫QRS120 was significantly better at 61%, 83%, and 92% (P = .007, .002, .0003), respectively.

Conclusions: Localization of the origin of ventricular activation to the vicinity of the endocardial segment of origin can be achieved with high accuracy by template-matching using the 12-lead ECG; significantly better accuracy can be achieved

with 120-lead body surface potential maps. Real time implementation of this method may facilitate pacemapping of VT.

Keywords:

Quantitative measurements; Ventricular tachycardia; Body surface potential mapping.

***Name* :** **Nancy Maher Ahmed Lotfy**

***Faculty* :** **Medicine**

***Dept.* :** Ophthalmology

***Degree* :** Ph.D.

Title of Thesis: Transplantation of Ex-Vivo Expanded Epithelial Stem Cells in Limbal Stem Cell Deficiency (Laboratory/Clinical Prospective Interventional Non-Controlled Nonrandomized Study)

Supervisors : Dr. Samia Mamdouh Sabry, Dr. Hazem Mahmoud Ali Atta and Dr. Sherif Ali Gamal El-Din

Abstract :

Limbal stem-cell deficiency can be congenital or acquired; it can also be partial or total. Treatment options include: conjunctival-limbal autografts, keratolimbal lamellar allograft, and living-related conjunctival-limbal allografts. A novel method of transplanting limbal stem cells is via ex-vivo expansion of limbal stem cells; with the advantages of: a smaller limbal biopsy, reduced risk of precipitating stem cell failure in the donor eye, and allowing the option of taking a further biopsy if required.

Keywords:

Cornea; Limbal; Stem cell; Ex-vivo expansion.

***Name* :** **Ahmed Moustafa Refaat Hamdy**

***Faculty* :** **Medicine**

***Dept.* :** Tropical Medicine

***Degree* :** M.Sc.

Title of Thesis: Quantitative Measurements Comparing Body Surface Potentials During Pace Mapping and Spontaneous Ventricular Tachycardia

Supervisors : Dr. Ayman Yosry Abd El-Rahim, Dr. Badawy Mohamed Badawy El-Kholy and Mohammad Salah Abd El-Bary

Abstract :

Serum alanine transaminase (ALT) activity is most commonly measured to assess hepatic disease. Recent studies suggest that the current reference ranges for ALT normal values currently used in clinical practice underestimate the actual frequency of chronic liver disease. Also, the so-called 'reference' populations were likely to include substantial proportions of individuals with nonalcoholic fatty liver disease (NAFLD), now recognized as the most prevalent cause of chronic liver disease in developed countries. So, revision of the normal limits for ALT level is recommended as the current standards for "normal" ALT level fails to identify many patients with hepatic injury.

Keywords:

Living donors for liver transplantation (LDLT); Chronic HCV; Alanine aminotransferase (ALT).

***Name* :** **Aisha Safwat Seif El-Din**

***Faculty* :** **Medicine**

***Dept.* :** Occupational and Environmental Medicine

***Degree* :** M.Sc.

Title of Thesis: Assessment of Lipid Peroxidation and P53 as a Biomarker of Carcinogenesis Among Workers Exposed to Formaldehyde in Cosmetic Industry

Supervisors : Dr. Dalia Ismail Atia, Dr. Neveen Abd El-Maksoud Abd El-Maksoud Mansour and Fatma Mohammed Taha

Abstract :

Despite the wide use of cosmetic products, they exert a number of health effects on tissues ranging from irritation to cancer. Our study aimed at assessing the effect of formaldehyde on lipid peroxidation and verifying the susceptibility to carcinogenesis using p53 as a biomarker among workers exposed to formaldehyde in cosmetic industry. Our entire exposed group (n=40) and matched control (n=20) were subjected to estimation of formate in urine, serum malondialdehyde and p53. Also, complete blood picture, liver and kidney function tests were done. The study revealed significant increase in formate, malondialdehyde and p53 in the exposed group compared to their control. Our results showed that workers in cosmetic industry had significant exposure to formaldehyde. Further, the study pointed to the negative impact of formaldehyde as a cause of oxidative and suspicious carcinogen.

Keywords:

Cosmetic industry; Formaldehyde; Malondialdehyde and p53.

Name **:** **Mona Hazem El-Nagdy Saleh**

Faculty **:** **Medicine**

Dept. **:** Clinical and Chemical Pathology

Degree **:** M.Sc.

Title of Thesis: Genetic Bolymorphism of Caspase 8 and 10 and the Risk of Non Hodgkin Lymphoma

Supervisors : Dr. Hanaa H. Arnaout, Dr. Ola M. Reda Khorshid and Mervat Mamdooh Khorshied

Abstract :

Background and purpose: non-Hodgkin lymphomas are closely related diseases with distinchve morphologic immunophenotype genetic and clinical features. Genetic susceptibility studies of NHL are mandatory to identify at risk populations and to clanity important disease mechanisms. Caspase genes ply a key role in regulation of apoptotic cell death and dysiregulation of this signaling pathway has been shown to participate in tumorigenesis. The current study aimed at dehining the role of CASPASE and D302H, caspase 8-6526N ins/del and casp10 I522L genetic polymorphisms as risk factors for NHL and their possible role as genetic prognostic markers. **Methods:** the present study included 100 Egyptian B-cell NHL patients and 100 neolthy controls. Genotyping of the studied genes was performed by polymerase chain reaction-reshiction fragment length polymorphism (PCR-RFLP) technique. Data was analyzed using SPSS statistical package version 15. **Results:** the study revealed that casp 8 D302H mutant genotypes were significantly higher in NHL patients when compared to the controls and cantered increased risk of NHL for CASP8-652 6N ins/del and CASP 10 15821, there was no statistical difference in the distribution of the different genotypes between NHL cases and the controls. Furthermore there was no statistical differences between NHL patients horbouning the wild or mutant genotypes of the studied genes as regards their response to therapy.

Keywords:

Caspse; Polymorphisms; Non-hodgkin's lymphoma.

***Name* :** **Normeen Hany Aly Mohamed**

***Faculty* :** **Medicine**

***Dept.* :** Clinical and Chemical Pathology

***Degree* :** M.Sc.

Title of Thesis: A Study of Interleukin-10 (IL-10) Promoter Gene Polymorphisms and Response to Therapy in Chronic Hepatitis C Infection in Egyptian Children

Supervisors : Dr. Sahar Abd El-Atty Sharaf, Dr. Iman Atef Mandour and Hanaa Moustafa El-Karaksy

Abstract :

Background: According to the world Health Organization (WHO) report (2002), at least 170 million people are chronically infected with hepatitis C virus (HCV).Egypt with the highest prevalence of HCV infection (15%), its rural villages have a high prevalence of HCV infection in children younger than 10 years of age. Interleukin 10 (IL-10) an anti-inflammatory cytokine, down regulates the protective inflammatory response, adversely affecting the response to antiviral treatment. The IL-10 promoter is highly polymorphic, two single nucleotide polymorphisms (SNPs) G1082A and C592A that form three haplotypes (AA, AC, and GC) have been shown to be associated with differential IL-10 expression in humans. **Aim of work:** determine the prevalence of the 2 SNPs G1082A and C592A in the IL-10 promotor region and their effect on response to antiviral therapy in a cohort of children and young adults with HCV infection.

Patients and methods: forty HCV patients underwent baseline quantitation of HCV-RNA by polymerase chain reaction (PCR) and baseline biochemical testing and were followed up for seventy-two weeks, both clinically and via laboratory assessment HCV-RNA viral load and liver function tests. The genotype status of IL-10 was assessed by real time PCR-Taqman probe based assay. **Results and conclusion:** there was no significant association between polymorphisms in the IL-10 gene (G1082A and C592A) or cytokine haplotype as regards response to therapy or severity of HCV infection in children. As for the SNP C592A; there was a statistically significant association between the score of fibrosis and different genotypes ($P < 0.004$), concluding that the (A) allele is risky. HCV RNA-count and gamma glutamyl transferase pretreatment levels were found to be predictors of response to interferon therapy in HCV infected children in this study.

Keywords:

Interleukin-10 (IL-10); Hepatitis C; Polymorphism; Real time PCR).

Name **:** **Amr Ragab Radwan Ragab El-Beialy**

Faculty **:** **Oral and Dental Medicine**

Dept. **:** Orthodontics and Dentofacial Orthopedics

Degree **:** Ph.D.

Title of Thesis: Landmark Identification on 3-Dimensional Radiographic Volume for Craniometric Measurements

Supervisors : Dr. Yehya Ahmed Abd El-Aziz, Dr. Amr Mohamed Abou El-Ezz and Essam Nassef Selim

Abstract :

The aim of this study is to define 3D craniometric landmarks for standardization of orthodontic diagnosis, test the validity of a low-dose CBCT scanner, investigate the accuracy of imaging at various head orientations, establishing a clinical imaging protocol, evaluate the reliability of landmarks on 3D radiographic volumes for craniometric measurements, formulate 3D analysis that target the translation and rotation of the different skeletal bases along the three spatial axes, generate 3D norms for an orthodontically normal sample, and test the sensitivity of new proposed measurements. From the results of this study, it was concluded that the low-dose CBCT scanner was compatible to the ALARA principle can be implemented into the maxillofacial discipline. CBCT data output is compatible to the anatomic truth. Accuracy and reliability of CBCT measurements are not affected by changing the head orientation. Landmarks with good reliability in the three dimensions and clinically acceptable limits of agreement have been established. Alveolar bone crest can be adequately identified using a low-dose CBCT scanner. A 3D CBCT craniometric analysis has been generated from reliable landmarks. Cor-MdFn-Ge(R/L) measurement proved to be sensitive in distinguishing the various mandibular patterns.

Keywords:

Orthodontics; Diagnosis; Radiogrphy; CBCT; 3D Cephalometrics.

Name **:** **Karim Mohamed Fawzy**

Faculty **:** **Oral and Dental Medicine**

Dept. **:** Oral Medicine and Periodontology

Degree **:** Ph.D.

Title of Thesis: Evaluation of the Use of Mesenchymal Stem Cells in Periodontal Tissue Regeneration (Animal Study)

Supervisors : Dr. Mahmoud El-Refai, Dr. Mona Salah EI-Din Darhous and Dr. Manal EI-Masry

Abstract :

The aim of the present study was to investigate the periodontal regenerative potential of gingival margin-derived mesenchymal stem/progenitor cells in an animal model. Periodontal defects were induced at six sites in eight miniature-pigs in the premolar/molar area. Autologous cells were isolated from the gingival margin of each animal, magnetically sorted using STRO-1 antibodies and characterized flow-cytometrically for the expression of CD14, CD31, CD34, CD45, CD117 and STRO-1. Colony-formation and multilineage differentiation potential were tested. The cells were expanded ex-vivo and loaded on BioOss®-(test-group-1)-and Collagen-(test-group-2)-scaffolds and transplanted into the animals, together with unloaded scaffolds (control-groups-1 and -2), sites receiving subgingival debridement (control-group-3) and non-treatment controls (control-group-4). Clinical attachment level (CAL), probing depth (PD), gingival recession (GR) and subtraction volumetric computed tomography (CT) examinations were performed at -4 weeks, baseline and 12 weeks. The histological attachment level (HAL) was evaluated after 12 weeks in each group. Results of this study revealed that cells were plastic-adherent, showed colony formation, were CD14-, CD34-, CD45-, CD31+, CD117+, STRO-1+ and could be differentiated into osteoblastic, adipocytic and chondroblastic directions. Test-group-1 and -2 showed considerable gains in CAL, PD, gingival height and HAL. A significant radiographic defect fill was observed in test -group-1 compared to control-group-4. In conclusion, mesenchymal stem/progenitor cells from the gingival cervical margin showed a significant potential in regenerative periodontal treatment.

Keywords:

Stem cells; Gingiva; Periodontitis; Regeneration.

Name **:** **Manar Abd El-Waniss M. Abd El-Aziz**

Faculty **:** **Oral and Dental Medicine**

Dept. **:** Oral Pathology

Degree **:** M.Sc.

Title of Thesis: Expression of CD147 (Stem Cell Marker) in Oral Dysplasia and Oral Squamous Cell Carcinoma (Immunohistochemical Study)

Supervisors : Dr. Sawsan Naguib Abd El-Bary and Dr. Dalia Hussein El-Rouby

Abstract :

The majority of oral squamous cell carcinoma (OSCC) is preceded by oral premalignant lesions (OPL). The transition of premalignancy into invasive carcinoma necessitates the remodeling of the extracellular matrix (ECM) and basement membrane which may be the first step of local invasion. This remodeling is mediated by various soluble and cell surface molecules, including extracellular matrix metalloproteinase inducer (EMMPRIN). Since EMMPRIN plays such an important role in epithelial-connective tissue interactions, the expression patterns of EMMPRIN were estimated in normal oral mucosa, epithelial dysplasia and in different grades of OSCC in order to evaluate its role in cancer progression. In the current study, immunohistochemical staining using anti EMMPRIN antibody was conducted on 45 paraffin-embedded specimens of oral epithelial dysplasia (OED) and oral squamous carcinoma (OSCC) and compared with normal oral mucosa. The positive immunoreaction of EMMPRIN was detected in both epithelium and underlying connective tissue. It was located at the cell membrane or appeared as a granular cytoplasmic reaction.Generally, the expression of EMMPRIN was significantly greater in OSCC followed premalignant lesions than in the normal oral mucosa. However, its expression in severe dysplasia was higher than in well differentiated squamous cell carcinoma which supports its role in the invasion of cancer cells. As EMMPRIN is actively involved in tumor growth, invasion and metastasis, its measurement may be helpful in predicting patients' prognosis.

Keywords:

Oral epithelial dysplasia; Reactive (inflammatory) dysplasia; Premalignant lesions and conditions; Oral squamous cell carcinoma (OSCC); CD147/ Extracellular matrix metalloproteinase inducer (EMMPRIN); Stem cell marker; Immunohistochemical study; Computer image analysis.

Name **:** **Mennat Allah Ihab El-Sayed Mosleh**

Faculty **:** **Oral and Dental Medicine**

Dept. **:** Orthodontic

Degree **:** M.Sc.

Title of Thesis: A Three Dimensional Comparative Study of Two Rapid Maxillary

Supervisors : Dr. Mohamed Amgad Kaddah and Dr. Fatma Abdou Abd El-Sayed

Abstract :

Maxillary constriction is considered one of the common orthodontic problems that could be accompanied by unilateral or bilateral posterior cross-bite narrow nasal cavity, and dental crowding. **Aim:** The purpose of this study was to evaluate and to compare three dimensionally the dento-skeletal changes concurrent with tooth-borne and bone-borne rapid maxillary expanders. **Material and methods:** The study was conducted on 20 growing female patients with a mean age of 12±2 years old . They weredivided into two equal groups; the first group was treated by tooth borne (Hyrax) expander supported by four stainless steel bands, whereas the second group received bone borne (Hyrax) expanders anchored directly to the palatal bone through four mini-screws. Orthodontic study models, intra- and extra-oral photographs, and cone beam computed tomography(CBCT) images were taken before and immediately after treatment were taken. Cone beam computed tomography scans was the tool of assessment in this comparative study. **Results:** On comparing both groups,subjects in tooth borne expander group showed a significant increase in nasal widths (P =0.018). There was a higher significant increase in intercuspal widths of first premolars (P =0.046) and first permanent molars (P = 0.015) noticed in the tooth borne group. The tooth borne group resulted in a higher significant increase in thebuccolingual inclination (buccal rolling) of the upper first premolars compared to the bone borne group. Superimpostionof three dimensional images revealed skeletal expansion in canine, first premolar and first molar regions in both groups. **Conclusion:** The greatest skeletal and dental changesoccuredin the transverse dimension in both expanders whereas, the vertical and anteroposterior changes were minute. Both groups produced basal bone expansion at the level of the hard palate. Regarding the dental expansion, the tooth borne expander produced more dental expansion than bone borne expander resulting in a buccal rolling effect in the upper first premolar teeth. As for the nasal width changes, there was a greater increase noticed in the tooth borne expander group. ***Keywords:*** Rapid maxillary expansion; Miniscrews; Cone Beam Computed Tomography.

Name **:** **Mohamed Khaled Abd El-Rahman**

Faculty **:** **Pharmacy**

Dept. **:** Analytical Chemistry

Degree **:** Ph.D.

Title of Thesis: Analytical and Stability Studies on some Drugs Affecting the Muscloskeletal System

Supervisors : Dr. Mohamed Galal El-Bardicy, Dr. Maissa Yacoub Salem Dr. Nebsen Morcos and Dr. Amira El-Kosasy

Abstract :

Most pharmaceutical compounds are subjected to some degradation with the subsequent partial or even complete loss of pharmacological activity or the conversion into harmful or toxic substances. A stability indicating procedure may be defined as a procedure that affords selective determination of a drug in presence of its degradation products. This work is concerned with the quantitative determination of the intact molecules of some for some drugs affecting the musculoskeletal system, namely, diacerein, neostigmine bromide, allopurinol, benzbromarone and orphenadrine citrate in raw materials, in presence of their degradation products and in their pharmaceutical dosage forms using different analytical techniques. Simple spectrophotometric, ion-selective electrode based potentiometric and chromatographic methods were developed for the stability indicating determination of diacerein, neostigmine bromide, orphenadrine citrate and for the analysis of a mixture of allopurinol and benzbromarone.

Keywords:

Spectrophotometric; Ion-selective electrode; Chromatography; Diacerein; Neostigmine bromide; Orphenadrine; Allopurinol; Benzbromarone.

Name **:** **Said Abd El-Monem Hassan**

Faculty **:** **Pharmacy**

Dept. **:** Analytical Chemistry

Degree **:** M.Sc.

Title of Thesis: Analysis of Selected C.V.S. Acting Drugs

Supervisors : Dr. Badr El-Dean Abd El-Haleam El-Zeany, Dr. Maissa Yacoub Salem and Dr. Hany Wagih Darwish

Abstract :

This thesis is concerned with the analysis of four selected drugs of the CVS acting drugs namely Amlodipine besylate, Atorvastatin calcium, Valsartan and Hydrochlorothiazide. In this work, different analytical techniques were applied for the simultaneous quantitative determination of Amlodipine besylate and Atorvastatin calcium in their laboratory prepared mixtures and in their tablet dosage form using spectrophotometric methods. Stability study was carried out on Amlodipine besylate and Atorvastatin calcium and stability indicating methods were developed for the determination of both drugs in the presence of their acidic degradation products using chemometric methods. Different analytical techniques were applied for the simultaneous quantitative determination of Amlodipine besylate, Valsartan and Hydrochlorothiazide in their laboratory prepared mixtures and in their tablet dosage form using spectrophotometric, chemometric and chromatographic methods. The aim of the present work was the development of analytical procedures which would be feasible, sensitive and specific for the determination of the studied drugs in their laboratory prepared mixtures and their pharmaceutical dosage forms and Amlodipine besylate and Atorvastatin calcium in the presence of their acidic degradation products.

Keywords:

Amlodipine besylate; Atorvastatin calcium; Valsartan; Hydrochlorothiazide; Spectrophotometry; Chemometry and chromatography.

***Name* :** **Hala Aziz Shokralla Makar**

***Institute* :** **National Cancer Institute**

***Dept.* :** Medical Oncology

***Degree* :** Ph.D.

Title of Thesis: Prognostic Effect of Drug Resistance of Glutathione-S-Transferase in Non Small Lung Cancer

Supervisors : Dr. Rabab Mohamed Gaafar, Dr. Abeer Ahmed Bahnassy and Dr. Amany Mohamed Helal

Abstract :

Background And Objective: It has been known that the expression levels GST were correlated with tumorigenesis and prognosis. The aim of this study is to investigate the relationship between expression levels of GST in tissue &serum level, and clinicopathologic parameters, survival &response to platinum containing regimen used in treatment of patients with lung cancer. **Methods:** The expression levels of GST were detected by immunohistochemical staining on tissue micro-array sections made of 64 cases of lung cancer and serum samples were collected from 68 cases pre-treatment, post 2^{nd} Cycle & post 4^{th} as such.10 control cases serum samples were also examined. The results were compared with relevant clinical and pathologic data. **Results:** There were 50 males (73.6%) and 18 females (26.4%), their ages ranged from 30 to 69 years with a median of 55 years. The pathology included 24 patients had squamous cell carcinoma and 44 non squamous cell carcinomas. PS was I in 36 (52.9%) cases while PS was II in the remaining 32 cases (47.1%). Sixty cases were presented with either stage IIIB or IV. Serum samples pre-treatment could express tissue expression of GST ($P<0.001$). We also found that GST in serum rose markedly in progressive disease compared to minor rise in stable disease in post 2^{nd} & 4^{th} cycle samples compared to pre-treatment level, while it decreased in disease responding cases (PR) $p<0.001$ and 0.015 consecutively. A strong correlation between early& late stages disease and both OS ($p=0.03$) & PFS ($p= 0.003$) was found. There were no significant correlations between tissue expression of GST and either overall survival ($P = 0.66$) nor progression free survival. ($P =0.34$), same as serum GST pre-treatment level ($p= 0.68$ & 0.106). Multivariate analysis using Cox regression model showed that expression levels of GST & serum level pretreatment were not the important independent prognostic factors for survival. **Conclusion:** Serum GST pretreatment level in non small cell lung cancer could predict tissue expression of GST. Changes in this level, whether rising or declining, could predict response to platinum containing regimen. ***Keywords:*** Non small cell lung cancer; Chemoresistance; Platinum; GST.

***Name* :** **Reem Mohamed Emad El-Din**

***Institute* :** **National Cancer Institute**

***Dept.* :** Radiation Oncology

***Degree* :** Ph.D.

Title of Thesis: Hypofractionated Stereotactic Radiation Treatment for Benign Peri optic Tumors

Supervisors : Dr. Hoda Abd El-Baky, Dr. Tarek Hamed Shouman and Dr. Wael Abd El-Haleem Reda

Abstract :

This prospective one arm clinical trial aimed to evaluate the use of hypo fractionated stereotactic radiotherapy for benign peri optic tumors and the preservation of visual field and pituitary hormonal functions. The study took place in the Radiotherapy Department, National Cancer Institute. It included 39 patients with benign brain tumors involving or adjacent to the optic apparatus. Tumor types were meningioma (n=16), craniopharyngioma (n=13) and pituitary adenoma (n=10). They were treated with hypo fractionated stereotactic radiotherapy to a total dose of 1650-2520 cGy over 3-6 fractions. After a mean follow up duration of 38 months and a median of 40 months, the 3-year and 5-year progression free survival were 91 % and 85% respectively. Most patients had a stable MRI picture at the last follow up (62%), 25% had regressive disease and only 13% had progressive disease. The overall vision was preserved in 82 % of patients. Local control and vision preservation were not affected by the type of tumor, the volume of tumor nor the dose delivered. Before treatment 40% of patients had one or more of the tested pituitary hormones abnormal and at the last follow up itincreased by only 10% to reach 50%. The study concluded that hypofractionated stereotactic radiation treatment is safe and effective in treating benign perioptic tumors, as these tumors were controlled with a good vision preservation rate, minor decline in pituitary functions and accepted toxicity profile. The study also concluded that the hypo fractionated schedule has the same local control and vision preservation rates as the conventional fractionated and single stereotactic radiosurgery. However, the hypo fractionated schedule is more convenient than the conventional fractionated.

Keywords:

Stereotactic; Perioptic; Hypofractionated; Radiation.

***Name* :** **Ali Ismaiel Ali Abd El-Rehiem**

***Institute* :** **National Cancer Institute**

***Dept.* :** Cancer Biology

***Degree* :** Ph.D.

Title of Thesis: Molecular Studies on the Possible Role of Urinary Bacterial Infection in Bladder Carcinogensis (Experimental Study)

Supervisors : Dr. Abd El-Baset El-Aasar, Dr. Ibrahim M. Abd El-Salam, Dr. Saad M. El-Gendy and Dr. Abeer M. El-sayed Ashmawey

Abstract :

This work aims to study the possible role of chronic inflammation induced by E. coli in the induction of bladder cancer in rats and to study the protective role of soybean flour against bladder carcinogenesis. The results indicated that E.coli infection to bladder tissues increases the carcinogenic ability of nitrosamine precursors and this may be due to increase of nitrite production by the bacteria and continuous production of nitrosamine. In addition, bacterial infection enhanced oxidative and nitrosative stresses by increasing the levels of hydrogen peroxide, malondialdhyde and nitric acid and these combined by low levels of antioxidants enzyme catalase and disrupt the scavenger system including reduced glutathione. So bacterial infection of the urinary bladder may playa major additive and synergistic role in bladder carcinogenesis. The data indicate that soy flour have the ability to overcome the decrease in p 16 and caspase-3 expression by unknown mechanism may be by decrease oxidative stressand lipid peroxidation and this open a new promising goal in gene therapy with tumor suppressor genes, such as p 16, for treatment of bladder tumor suppressor patients, and would be easy to apply. The results indicate that oxidative stress and lipid peroxidation are accelerated during bladder carcinogenesis. Soy flour was found to be chemoprotective agents against bladder cancer. Further studies still needed to get better understanding on the mechanisms of chemoprotective of these agents.

Keywords:

Bladder cancer; E. coli; Soybean; DBNA; Chemoprevention; P16; Caspase-3; Oxidative stress; Antioxidants; Nitric acid; Catalase; H_20_2; MDA.

Name **:** **Ahmed EI-Hussein EI-Said**

Institute **:** **National Cancer Institute**

Dept. **:** Pediatric Oncology

Degree **:** M.Sc.

Title of Thesis: Acute Leukemia in Children with Down Syndrome

Supervisors : Dr. Iman Abd EI-Mokhales Sidhom, Dr. Heba Sayed Moussa and Dr. Vasser EI-Sayed EI-Borai

Abstract :

Down syndrome has been recognized as one of the most important leukemia predisposing syndromes and patients with Down syndrome and leukemia have unique clinical features and significant differences in treatment response and toxicity profiles. One of the challenges faced in treating children with Down syndrome and leukemia is balancing curative therapy against potential toxicities. It is now clear that the mechanisms regulating the response to therapy and toxicity to chemotherapy agents in the treatment of Down syndrome leukemia are multi-factorial and they offer a powerful model to improve our understanding of the mechanisms of chemotherapy sensitivity.

Keywords:

Down syndrome; Acute leukemia; An essay.

Name **:** **Mamdouh M. Mounir Abou El-Ela Hassan**

Institute **:** **National Cancer Institute**

Dept. **:** Surgical Oncology

Degree **:** M.Sc.

Title of Thesis: Role of Fast Track Surgery for Colorectal Cancer in Minimizing

Supervisors : Dr. Waheed Yousry Gareer, Dr. Mohamed Al-Zohairy and Dr. Ekramy Mansour Abd El-Ghaffar

Abstract :

Background: Enhanced Recovery After Surgery (ERAS) protocols for perioperative management of colorectal cancer is a standard of care in many dedicated centers with evidence basedfeasibility and superiority on the conventional management. **Objective:** To review the medical literature in the subject of fast track surgery with special emphasis on surgery for colorectal cancer and to study the impact of this protocol on patients of the National Cancer Institute - Cairo University. **Patients and Methods:** A prospective randomized control study including fifty consecutive patients with colorectal cancer treated surgically during the period from the r of November 2011 till the is" of May 2012. Patients were randomized into 2 groups; group A managed according to the ERAS protocol and group B managed according to the conventional perioperative management for patients undergoing colorectal surgery. **Results:** The results of our study have shown significant advantages of fast track protocol; however, strong evidence is forthcoming through a larger study over a larger number ofpatients. **Conclusion:** This study concluded that the ERAS protocol is potentially applicable in the National Cancer Institute, Cairo University.

Keywords:

Fast track; Enhanced recovery after surgery ERAS; Colorectal cancer.

***Name* :** **Eman M. Othman Mohamed Abd Allah**

***Faculty* :** **Physical Therapy**

***Dept.* :** Surgery

***Degree* :** Ph.D.

Title of Thesis: Efficacy of Exercise Therapy Program on Balance in Lower Limb Ulcers

Supervisors : Dr. Adel Abd El-Hamid Nossier and Dr. Mohamed El-Shrief El-Sarky

Abstract :

Purpose: The current study was conducted to investigate the effect of exercise therapy program on improving dynamic balance in cases of lower limb ulcers. **Subjects:** Forty patients were included in this study. Their ages ranged from 40 to 60 years. They were randomly divided into two equal groups in number. **Procedures:** Group (A) received 6 weeks of treatment with Tai chi exercise (IB program) for 15 to 40 min 3 times per week while group (B) received their standard medical treatment only. The dynamic balance was measured for all patients by using Biodex balance system just before the study then also after 6 weeks of treatment application for both eyes opened and eyes closed. **Results:** This study showed significant statistical difference in balance performance between experimental and control group irrespective to overall stability index. Overall stability index was significantly decreased ($p \leq 0.05$) and the balance performance were significantly improved ($p \leq 0.05$) in the exercise therapy group with eyes opened and highly significant improved in the exercise therapy group with eyes closed. **Conclusion:** The suggested exercise program produced objective improvement in balance disturbance and is considered as a gold therapeutic tool in the management of dynamic balance in lower limb ulcers as the rate of falling can be decreased in those patients.

Keywords:

Lower limb ulcer; Dynamic balance; Tai chi exercise & biodex stability system.

Name **:** **Heba Ahmed Metwally Khalifa**

Faculty **:** **Physical Therapy**

Dept. **:** Physical Therapy for Neuromuscular Disorders and Daring

Degree **:** M.Sc.

Title of Thesis: Influence of Aerobic Exercise on Cognitive Function in Patients with Stroke

Supervisors : Dr. Moshera Hassan Darwish, Dr. Mohamed Soliman El-Tamawy and Dr. Fouad Abd El-Moneim Abd Alla

Abstract : **Background:** One third of stroke patients suffered of cognitive deficits which impede recovery. **Purpose** of this study was to assess and explain from physiological point of view the efficacy of aerobic exercise on cognitive impairment of stroke patients. **Methods:** Thirty ischemic stroke patients from both sexes represented the sample of the study. Their age ranged from 40 to 60 years. The patients were assigned into two equal groups; control group (G1) and study group (G2). The control group treated by a selective physical therapy program and the study group treated by the same program in addition to aerobic exercise on bicycle for 40 min. The physical therapy program was conducted three times per week, for two months. Different domains of cognitive function (attention, memory, language, verbal fluency and visuospatial ability) were assessed by Addenbroke's Cognitive Examination Revised test (ACER). Transcranial Doppler was used to measure blood flow velocity in MCA of both sides. Venous blood sample was analyzed to determine level of serum Brain Derived Neurotrophic Factor (BDNF). **The Results:** Before starting the treatment, there was a non-significant difference in the mean values of all variables in G1&G2. At the end of the treatment there was a non-significant change in all variables in (G1) except the verbal fluency domain of ACER test. In the study group (G2) there was a significant improvement in all domains of ACER test except the language domain. A significant increase in mean and maximum velocity in the affected MCA with lowering of pulsatility and resistance index in ipsilesional and contralesional MCA was observed. The mean value of serum BDNF level also showed significant increase **($p<0.05$)**. There was a significant positive correlation between improvement in total score of ACER test, blood flow velocity and level of serum BDNF in (G2). **Conclusion:** Aerobic exercise has a positive effect in improving cognitive function in stroke patients.

Keywords:

Aerobic exercise; Cognitive function; Stroke; TCD; BDNF.

Name **:** **Marwa Abd El-Kreem Ibrahim Hassan**

Faculty **:** **Nursing**

Dept. **:** Pediatric Nursing

Degree **:** Ph.D.

Title of Thesis : Impact of Nursing Management Protocol on Selected Postoperative Outcomes Among Children with Open Heart Surgery at Cairo University Specialized Pediatric Hospital

Supervisors : Dr. Elham M. Ahmed, Dr. Soheir Abd Rabou Mohamed and Dr. Mohamed Rady Abou El-Ezz

Abstract : Open-heart surgery is a common medical procedure that can save lives and improve the quality of heart. The current study was conducted to evaluate the impact of nursing management protocol on selected postoperative outcomes among children with open heart surgery at Cairo University Specialized Pediatric Hospital. The study utilized a pre- post-test quasi-experimental research design. A total sample of 70 children who were undergoing open heart surgery was selected from the surgical unit. Data required for the study were collected through the use of three data collection tools developed by the researcher. The first one is structured interview schedule which includes the sociodemographic data about children and their families it also involve history of child's illness. The second one was the postoperative assessment data sheet to assess the children during postoperative phase. It includes established child postoperative outcomes criteria related to: (1) respiratory functions;(2) wound condition; (3) renal functions and characteristics of urine; (4) chest tubes drainage system. And the third one was the nursing management protocol. It is apparent from the current study's results that, there were highly statistically significant differences between the pre and post application of the nursing management protocol at first and second days after surgery regarding respiratory rate, pulse, temperature and others. As well as, there were highly statistically significant differences between pre and post application of the nursing management protocol at first and second days after surgery as regards the means of oxygen saturation, PaO2, PcO2, and others. The study results concluded that, the effectiveness of the designed nursing management protocol on improving postoperative outcomes among children who participated in the current study. The study recommended the integration of the designed nursing management protocol in the care of children undergoing open heart surgeries in PCICU. ***Keywords:*** Congenital heart disease; Open heart surgery; Nursing management protocol.

Name **:** **Amany Mosad Ahmed Marzouk**

Faculty **:** **Nursing**

Dept. **:** Maternal & Newborn Health Nursing

Degree **:** M.Sc.

Title of Thesis: Assessment of Risk Factors for Fetal Congenital Anomalies Among Pregnant Women at El-Manial University Hospital

Supervisors : Dr. Shadia Abd El-Kader Hassan, Dr. Azza Ali Abd El-Hamid and Dr. Hassan Mostafa Gaafar

Abstract : **Background,** congenital anomaly is a defect that is present at birth, and can result from either genetic, environmental factors, or both. **Aim,** was to assess the risk factors which may lead to fetal congenital anomalies. **Design,** a descriptive research design was adopted. **Sample,** a total of 265 pregnant women were recruited according to the following criteria: pregnant in a fetus with a congenital anomaly; at any reproductive age; no specific gravidity or parity; single or multiple gestations. **Setting,** Fetal Medicine Unit at El-Manial University Hospital. **Tools,** two tools were constructed and filled in by the researcher: 1) fetal assessment sheet 2) interviewing questionnaire schedule. **Results,** age range of the pregnant women was 17-44 years with a mean of 26.63 ± 5.37 years. Seventeen percent of them cannot read and write while, 20% had university education. Renal anomalies, central nervous system (CNS), muscloskeletal , and cardiovascular anomalies were the most common congenital anomalies constituted 36.6%, 34.7%, 20.8%, 10.6% respectively of the total anomalies. Regarding to risk factors for congenital anomalies, 45.7% of the pregnant women had first degree consanguinity, 16.6% had a family history of a congenital anomalies, 19.2% had a previous child with a congenital anomalies, 29.1% gave a history of consuming drugs during present pregnancy, 18.5% of the pregnant women live near industrial source and 21.5% of them experienced infection during present pregnancy. **Conclusion,** renal, CNS and muscloskeletal anomalies were the most common type of congenital anomalies. Positive consanguinity, family history for congenital anomalies, previous child with a congenital anomaly, consuming drugs during pregnancy, living near industrial source and exposure to infections during pregnancy, were the most common risk factors associated with congenital anomalies. **Recommendations,** premarital examination for consanguineous marriages should be encouraged. Antenatal care is very important for suspection and early detection of congenital anomalies.

Keywords:

Risk factors; Congenital anomalies; Pregnant woman.

Name **:** **Nareman Aly Mohammed**

Faculty **:** **Nursing**

Dept. **:** Psychiatric Nursing

Degree **:** M.Sc.

Title of Thesis: Assessment of Suicidality Risk Factors and Its Management at Poison Control Center Cairo University

Supervisors : Dr. Sayeda A.Abd El-Latief, Dr. Ahmed Abd El-Latief and Dr. Abd El-Rahman El-Naggar

Abstract :

Suicidality is undoubtedly a pressing clinical issue. It represents a significant public health problem worldwide. Suicide represents a complex and multi factorial human behavior, mental illness, genetics, biological, psychosocial and cultural factors that contribute to the etiology of suicidal behavior. Effective treatment of suicidal behavior can potentially save an individual's life; therefore, this study was conducted to assess the suicidality risk factors and its management. A descriptive correlational design was utilized in this study. A sample is convenient; all patients who were admitted to Poison Control Center, Cairo University over three months were recruited. Socio-demographic/medical data sheet, Perceived Social Support Scale, Beck Depressive Inventory Scale, Beck Suicidal Ideation Scale, Life Stressors questionnaire and Management questionnaire were used to achieve the purpose of this study. Results revealed that most of attempters were female adolescents, showed a higher tendency to be single, unemployed, moderate education , resided urban areas, using drug self poisoning ,showed none previous attempts ,high suicidal ideation and moderate depression. The most prominent problems were family problems. Attempters found low family support and high friend support and without receiving any type of management except medical management. To conclude suicide attempters need social and emotional support from their significant others. Further studies about suicidal ideation assessment among group at risk for early detection are recommended.

Keywords:

Suicide; Depression; Suicidal ideation; Social support; Life event.

Cairo University

Engineering Sciences Sector

- Engineering
- Urban Planning
- Computers and Information

Name **:** **Abd El-Salam Ahmed Mohamed El-Awwad**

Faculty **:** **Engineering**

Dept. **:** Public Works

Degree **:** Ph.D.

Title of Thesis: Effect of Start-Up and Starvation Conditions on the Nitrification Process in Aerated Submerged Fixed-Bed Biofilm Reactors (SFBBRs)

Supervisors : Dr. Hisham Abd El-Halim, Dr. Maged Hamed and Heinz Köser

Abstract :

This study focuses on the improvement of the operation and understanding of the behavior of submerged fixed-bed biofilm reactors (SFBBRs) as a nitrification process. Two issues were studied in this thesis: the start-up and the starvation of nitrifying biofilms. To achieve the objectives of this thesis, aerated two-stages bench-scale SFBBRs were operated over one year at 20°C. For all reactors, the applied ammonia load was 1.41±0.2 gN m^2 d^{-1}. Using the fluorescence in situ hybridization (FISH) technique, Nitrospirawas detected as the dominant nitrite oxidizing bacteria (NOB) genus. Among the ammonia oxidizing bacteria (AOB), the terminal restriction fragment length polymorphism (TRFLP) technique showed that during the start-up Nitrosospiraand N.europaea/eutrophawere dominant at the start-up. Nitrosospiravanished with time and N.europaeabecame abundant. Moreover, N.communisshowed affinity to low ammonia concentrations. The effect of long-period starvation (100 days) on the nitrifying bacteria under different oxidation reduction potential (ORP) was also studied. It was found that anoxic and alternating anoxic/aerobic conditions were best for preserving AOB, while extended anaerobic or aerobic conditions had a negative influence on AOB and should be avoided for fixed-growth biofilm reactors. TRFLP profiles showed that N.europeae/eutrophalineage had the highest abundance during the starvation and subsequent recovery periods regardless of starvation conditions.

Keywords:

Wastewater; Nitrification; SFBBR; Start-up; Starvation; FISH; TRFLP.

Name **:** **Josef Nagy Halim**

Faculty **:** **Engineering**

Dept. **:** Metallurgy

Degree **:** M.Sc.

Title of Thesis: Electrode position and Characterization of Nanocrystalline Ni-Mo Catalysts

Supervisors : Dr. Saad El-Raghy, Dr. Randa Abd El-Karim and Dr. Moataz Nabil

Abstract :

Ni-Mo deposits have been well known for their use as cathodes for hydrogen production from water by electrolysis as well as catalysts for hydrogen production by steam reforming of hydrocarbons. Nanostructured materials offer in general a larger reactive surface area which in this case will serve as a better catalyst. Electrodeposition is one of the most promising techniques for producing nanostructured materials owing to its relative low cost compared to the other methods for production of nanostructured materials. Ni-Mo nanocrystalline alloys and composites were prepared by electrodeposition using direct current from citrate-ammonia solutions in such a manner that the bath contains the same quantity of molybdenum in both cases. The effect of changing the plating current density on the morphology, chemical composition, mechanical and electrochemical properties has been investigated. The molybdenum content in both cases found to decrease by increasing the current density. The crystallite size of Ni-Mo alloys decreases by increasing molybdenum content. Ni-Mo alloys exhibit only a single Ni-Mo (FCC) solid solution phase. The microhardness exhibits a maximum value close to 300 Vickers for Mo content around 23 wt. %. For higher Mo content a softening is observed showing a deviation from Hall-Petchbehaviour due to the small crystallite size. In NaOH solution, the corrosion rate of Ni-Mo alloys decreases as the Mo content in the deposited layer is increased and the crystallite size increases. Electrochemical activity for hydrogen production showed to increase mainly due to increases the surface roughness of Ni-Mo alloys. Ni-Mo composites shows a rough and more inhomogeneous surface compared to that for Ni-Mo alloys. The surface roughness is shown to increase by increasing the current density. The corrosion rate of Ni-Mo composites are of higher values that for Ni-Mo alloys. Electrocatalytic effect for hydrogen production is increased by increasing Mo content in the composite as well as increasing the real surface area.

Keywords:

Nanocoatings; ectrode[osition; Ni-Mo alloys; Hydrogen catalysts.

Name **:** **Mohamed Ashraf Saad Zaghloul**

Faculty **:** **Engineering**

Dept. **:** Mathematics and Engineering Physics

Degree **:** M.Sc.

Title of Thesis: A Study of the Raman Spectrum of Simple Clathrate Hydrates of Hydrogen

Supervisors : Dr. Noha Mohamed Salem and Dr. Salah Mohamed El-Sheikh

Abstract :

Clathrate hydrates are molecular structures in which water molecules form molecular cages that host other species of molecules. These structures are formed as a result of phase transition under specific temperatures and pressures. The shape and stability of the structure is dependent on the guest molecules. Clathrate hydrates are immensely present in nature, and are expected to appear in various applications like in transport, and storage of other molecules. They are also thought of as the future worldwide energy reservoir. Raman spectroscopy offers an effective way to understand the dynamics of such crucial structures. Raman spectroscopic measurements were obtained from samples of simple clathrate hydrates of hydrogen and hydrogen deuteride, using a novel cell that allowed us to witness the formation of clathrates, and perform in situ measurements upon them. Understanding the Raman spectrum will help unravel new and interesting traits of enclathrated molecules, as it reveals their quantum dynamics inside molecular cages. The cluttered region of the Raman spectrum assigned to the vibrational states with different occupancies have been analyzed, and a new interpretation of this region of the spectrum is proposed in this work, based on calculations of average occupancy per large cage for samples formed at different synthesis pressures, and subjected to heating and quenching cycles.

Keywords:

Clathrates; Clathrate hydrates; Raman spectroscopy; Vibrational spectrum.

***Name* :** **Noha Ahmed Ahmed Abd El-Aziz**

***Faculty* :** **Urban and Regional Planning**

***Dept.* :** Urban Design

***Degree* :** Ph.D.

Title of Thesis: Spatial Poverty Map as a Guide for Regional Development Policies

Supervisors : Dr. Maher Mouhb Stino and Dr. Abbas El Zafrany

Abstract :

This research examines the relationship between urban parks and the quality of life (QoL). It aims at investigating both positive and negative impacts of urban parks on the quality of life of the city dwellers. To fulfill this aim, a theoretical framework is produced encompassing design and management criteria covering social, environmental, and economic goals. Afterwards, four case studies (El Azhar Park, El Dowlia Park, El Thakfia Park, and Rod El Farag Park) are chosen to test the theoretical framework in the Egyptian context . The results indicate that the current provision of local parks (with one function) is under-utilized and unable to attract and satisfy local dwellers. Design and management problems make of those parks a burden for the city economy. However, the research finds that regional park performance is better in providing significant QoL variables to the park users and the non-users in the adjacent neighbourhoods. Moreover, disparities are found among the perceptions of low, medium and high income users towards what affect the quality of their lives and what their preferences and priorities are. The research is concluded with recommendations regarding the planning, designing and managing guidelines for urban parks in Cairo city, with respect to the park accessibility (level of service) and the target users' socio-economic classes. Local recommendations targeting case studies to improve their efficiency and future research topics are suggested.

Keywords:

Public parks; Quality of life indicators; Designing and managing urban parks; Open green spaces problems in cairo city; Open green spaces strategic planning.

Name **: Abdullah Farouk Mohammed EL-Attar**

Faculty **: Urban and Regional Planning**

Dept. **:** Urban Design

Degree **:** M.Sc.

Title of Thesis: Using Light Rail Systems for Urban Development as an Approach For Sustainable Development

Supervisors : Dr. Soad Youssef Bashandy

Abstract :

The study discuses a mean of transportation and the impact of its use on urban areas, as discusses the impact of individual transport and private cars on the growing problems of the city, whether social, economic, environmental and especially on the deterioration of the physical environment of car oriented urban patterns. The main study question is How can we reduce that impact through the provision of appropriate alternatives of public transit, and how can Light rail systems in general develop urban areas in part to achieve sustainable development. The main goal of the research centered in study of the importance of light rail directed from the point consideration in solving the problems of transport within urban areas and how they can use it in urban development plans The importance of research in contribution to solve part of the problem of transportation in Egypt through developing public regulation of the planning framework and introducing trams and super trams as a Green Transit Corridors which encourage development of land uses and urban renovations associated with and encouraging to reduce the use of private cars Current study belongs to applied researches type aiming at assessing the relationship of tram and Light rail systems with strategies of sustainable urban transport or sustainable urban form. and reaching to a theoretical framework of a set of necessary elements to form green transit corridors, and through the international case studies to evaluate the framework and to add amendments to the proposal, which in turn influenced by studying the Egyptian case studies, the proposed frame work is for planning and designing light rail systems as a green transit corridors as well as access to a set of criteria for evaluating the success of future plans. This has been done during the following search chapters: The first chapter is an analytical study to address the definitions of transportation and the development of means of transport with a focus on periods of the emergence of light rails or trams and try to understand through the historical context the reasons for emergence and demise of trams in Egypt and countries around the world. Second chapter is an analytical study of guided transit

in general with a focus on light rail's technical , operational characteristics and types to help to understand the system and stands on their advantages and how to optimize Third chapter reviewed some facts of local and global theories for the impact of transport on sustainability, and stand on main policies and ideas of sustainable urban form and sustainable urban transport to set criteria for evaluating the framework to develop a light rail green transit corridor. Chapter four examines through international literatures and case studies factors influencing light rail system success whether urban policies, social factors, transport policies, and study the relation between these factors, policies or ideas of sustainable urban form and sustainable urban transport to answer research question that can a successful light rail system characteristics supports sustainable urban form and sustainable urban transport. Fifth chapter analyzes international case studies for implemented tram schemes to conclude essential factors for implementing the green transit corridors frame work on ground. Chapter six analyzes the local cases for trams and super trams to evaluate the proposed framework and making any adjustments to suit the Egyptian cases Chapter seven suggests planning framework for light rail as green corridors in Egypt.

***Name* :** **Heba Nabil Abd El-Hamed Kabil**

***Faculty* :** **Urban and Regional Planning**

***Dept.* :** Urban Regional Development

***Degree* :** M.Sc.

Title of Thesis: The Role of Geo-Environmental Factors in the Formulation of Regional Development Policies (Case Study of the Toshka Project)

Supervisors : Dr. Samy Amee Amer and Dr. Mohammed Magdy Korkor

Abstract :

The regional development on the exploitation of land resources, environmental and human potential, including the scientific and technological achievements and to meet human needs and improve and develop the quality of human life there is a close relationship between development processes and the earth and the environment is better based on the resources of both the second and third and can not be development without dealing with the Earth and the Environment resources and challenges to development processes, and relationships that appear in the resettlement of urban development projects of regional and internal reorganization of the place at the regional level a manner that ensures the continuity of its bid for the generations to follow. This study aims to examine a relationship between the factors geo-environmental policies and regional development through attention to monitoring problems and the lack of some development policies, regional objectives, and access it to see the show, the impact of factors geo-environmental influence in the two axes, one use of land resources and environmental surrounding the site and the other exposure to natural hazards, and access to the positives of interest to study the properties of the ground and affected the surrounding environment into development policies to reach the objectives of sustainable development, which emphasizes the importance of research that the factors geo-environmental that have an economic benefit, social and urban in the region achieving sustainability and communication in development undiscovered resources and possibilities of nature and specific to the sites of agricultural development, tourism, industrial and urban development, specific sites for geo-environmental risks. The search on the eight main chapters consisting of 299 Page 0.203 a 0.61 scale, in addition to the forefront of research, supplements, has defined its main goal is:"Activating the role of geo-environmental factors to maximize the return of regional development policies".

Research Components:

The research consists of five parts including 8 chapters, as follows:

• **Chapter I:** Geo-environmental factors and resources.

• **Chapter II:** Geo-environmental hazards and methods of protection.

• **Chapter III:** worker Djiobeiy entrance for Regional Development.

• **Chapter IV:** The Role of Geo-environmental factors in agricultural development policies.

• **Chapter V:** The role of geo-environmental factors in industrial development policies.

• **Chapter VI:** The role of geo-environmental factors in the politics of tourism development.

• **Chapter VII:** The Role of Geo-environmental factors in the regional pattern of urban.

• **Chapter VIII:** The Politics of Regional Development in the Toshka region in the light ofactivating the role of geo-environmental factors.

Keywords:

Geo-environmental factors; Djiomfallogy; Topography; Hydrological hydraulic; Geology; Soil; Resources geo; Geo-environmental risks; Regional development; Regional policy; Agricultural development; Industrial development; Tourism development; Urban layout.

Name **: Abd El-Rahman Galal Abd El-Wahab**

Faculty **: Computers and Information**

Dept. **:** Computer Science

Degree **:** Ph.D.

Title of Thesis: Extracting Flexible Hyperspectral Crops Patterns

Supervisors : Dr. Hesham Ahmed Hassan and Dr. Ibrahim Fahmy Imam

Abstract :

Hyperspectral measures are used to capture the degree of similarity between two spectra. Spectral angle mapper (SAM) is an example of such measures. SAM similarity values range from 0 to 1. These values do not indicate whether the two spectra are similar or not. A static similarity threshold is imposed to recognize similar and dissimilar spectra. Adjusting such threshold is a troublesome process. To overcome this problem, the proposed approach aims to develop learnable hyperspectral measures. This is done through using hyperspectral measures values as similarity patterns and employing a classifier. The classifier acts as an adaptive similarity threshold. The derived similarity patterns are flexible, as they are able to capture the specific notion of similarity that is appropriate for each spectral region. Two similarity patterns are proposed. The first pattern is the cosine similarity vector for the second spectral derivative pair. The second pattern is a composite vector of different similarity measures values. The proposed approach is applied on full hyperspectral space and subspaces. Experiments were conducted on a challenging benchmark dataset. Experimental results showed that, classifications based on second patterns were far better than first patterns. This is because first patterns were concerned only with the geometrical features of the spectral signatures, while second patterns combined various discriminatory features such as: orthogonal projections information, correlation coefficients, and probability distributions produced by the spectral signatures. The proposed approach results are statistically significant. This implies that using simple learnable measures outperforms complex and manually tuned techniques used in classification.

Keywords:

Hyperspectral measures; Support vector machines; Adaptive similarity threshold.

***Name* : Mohamed El-Sayed El-Arnaoty**

***Faculty* : Computers and Information**

***Dept.* :** Computer Science

***Degree* :** M.Sc.

Title of Thesis: Arabic Opinion Holder Extractor

Supervisors : Dr. Aly Aly Fahmy and Dr. Samir Abd El-Rahman

Abstract :

With the increasing availability of blogs, Internet forums and social networks, electronic press sites, people have the chance to express their opinions and sentiments and make them available to everyone. These opinions provide valuable information for decision-making processes. Therefore, the computational treatment of sentiments and opinions bearing text has been viewed as a promising, while challenging, area of research that can serve different purposes. To fulfill this, we need to identify first named entities, references to pronouns and other anaphors, and finally decide which of them is the holder of the expressed opinion.

Keywords:

Named entity; Opinion mining; Conditional random fields; Cross-validation; Private state.

Cairo University

Basic Sciences Sector

- Science
- Agriculture
- Veterinary Medicine

Name **:** **Shereen Musa Azab Musa**

Faculty **:** **Science**

Dept. **:** Chemistry

Degree **:** Ph.D.

Title of Thesis: Electrochemical Biosensor Based on Nanoparticles Modified Electrodes

Supervisors : Dr. Nada Farouk Ahmed and Dr. Fekrya Mossad Abou Attia

Abstract :

An effective electrochemical sensor for the determination of dopamine based on carbon paste (CP) electrode modified with gold nanoparticles (GNMCPE) was introduced. The advantages of the gold nanoparticles enhanced the sensitivity of the CP-electrode significantly. In a mixture of DA, AA and UA the sensor shows high selective response towards DA and no response for AA or UA. The effect of various experimental parameters including time of deposition of gold nanoparticles on CP-electrode, pH, scan rate, accumulation time and types of electrolytes were studied to find the highest sensitivity for the determination of DA. Another promising electrochemical sensor was developed using carbon paste electrode, gold nanoparticles and Nafion (CP-electrode/Nafion modified with gold nanoparticles-[electrode (2)]). This sensor is sensitive for the determination of catecholamine compounds, in the presence of interference molecules. Simultaneous determinations of DA with 5-TH and ACOP with L-DOPA in binary mixtures were achieved with good separation. Also a highly sensitive and simple method was investigated for the determination of acetaminophen and morphine using both electrodes. Under optimized experimental conditions, their sensitivities were improved greatly. Moreover, the present method was also applied for their determination in the presence of common interferents and in binary mixture with dopamine (DA). Also the effect of various experimental parameters on the voltammetric response of TR and GSH were investigated using [electrode (2)]. At the optimum conditions, the concentration of TR and GSH was determined and the effects of common interferences on the current responses were studied. The results showed that the method was simple and sensitive enough for their determination in clinical preparations and in commercial tablet under physiological conditions with good precision.

Keywords:

Electrochemical sensor; Carbon paste electrode; Gold nanoparticles; Nafion; Catecholamine compounds.

Name **:** **Rewaida Abd El-Hakem Abd El-Gaber**

Faculty **:** **Science**

Dept. **:** Zoology

Degree **:** Ph.D.

Title of Thesis: Morphological and Molecular Biological Studies on Some Myxozoan and Microsporidian Parasites Infecting Fishes in Egypt and Host-Parasite Relationship

Supervisors : Dr. Fathy A. Abdel-Ghaffar, Dr. Mohamed A. Shazly, Dr. Abd El-Hakim Saad and Dr. Kareem Said Morsy

Abstract :

The present study aimed to investigate some of the myxosporidian and microsporidian parasites infecting three of the economically important marine fishes of the Red Sea (Saurida tumbil, Pagrus pagrus and Epinephelus chlorostigma) collected from fisherman at boat landing sites of Suez & Hurghada cities at the Gulf of Suez & Red Sea, respectively; and one freshwater fish (Clarias gariepinus) was collected from the River Nile at Giza Governorate in Egypt. The examined fishes were collected monthly from October 2009 to January 2011. The investigation of parasitic infections was carried out by means of morphologic and morphometric characterization of these parasites. Also, the study described some of the important developmental stages of these parasites inside fish hosts at the ultrastructural level which are considered as key features for their classification. In addition, molecular analyses of 18 SSU rDNA; 16 SSU rDNA and phylogenetic relationships were applied to associate in the taxonomic characterization of myxo- & microsporidian parasites, respectively.

Keywords:

Myxosporidia; Microsporidia; Electron microscopic studies; Histopathological studies; Molecular analysis; Phylogenetic relationships.

Name **:** **Ekram Hamdy El-Sayed El-Ads**

Faculty **:** **Science**

Dept. **:** Chemistry

Degree **:** M.Sc.

Title of Thesis: Electrochemical Sensor Modified Electrodes for the Detection of Some Neurotransmitter Compounds and Pain Reliever Drugs

Supervisors : Dr. Nada Farouk Ahmed Atta

Abstract :

The electrochemical determination of some catecholamine neurotransmitters, and pain reliever drugs was enhanced in presence of sodium dodecyl sulfate (SDS) at modified electrodes by probing cysteine self-assembled monolayers (SAM) over gold nanoparticles surface, and by depositing gold nanoparticles over poly (3,4-ethylenedioxythiophene) film. Electrochemical measurements showed that the presence of SAM of cysteine on gold nanoparticles enhances the reversibility and the long term stability of the redox signals. Moreover, the inclusion of gold nanoparticles into the conducting polymer matrices strongly increases their electrocatalytic properties towards the compounds of study in presence of SDS. Different parameters relevant to sensors were considered such as the sensitivity, selectivity, stability of the redox signals, as well as detection limits.

Keywords:

Sensor; Self-assembly monolayer; Gold nanoparticles; Conducting polymers; Surfactant; Catecholamine neurotransmitters; Ascorbic acid; Morphine; SEM; AFM.

Name **:** **Sherif Mohamed Hassan Ali**

Faculty **:** **Science**

Dept. **:** Chemistry

Degree **:** M.Sc.

Title of Thesis: Construction and Performance Characteristics of New Ion Selective Electrodes Based on Carbon Nanotubes for Determination of Meclofenoxate Hydrochloride and Selegiline Hydrochloride

Supervisors : Dr. Nour El-Deen Tawfik Abd El-Ghani and Dr. Rasha Mohamed El-Nashar

Abstract :

The presented thesis describes the preparation and investigation of the performance characteristics of new plastic membrane electrodes, carbon paste electrodes and carbon nanotubes chemically modified carbon paste electrodes for potentiometric determination of meclofenoxate hydrochloride (MecloCl) and selegiline hydrochloride (SelCl). In these electrodes, the active element is polyvinyl chloride (PVC) membrane as in case of plastic membrane electrodes that plasticized with dioctyl adipate (DOA) containing an ion-exchanger of the investigated drug with phosphomolybdic acid (PMA) or phosphotungstic acid (PTA). Carbon paste electrodes presented low cost and easy construction by simple mixing of graphite powder with dioctyladipate (DOA) as a plasticizer and an ion-exchanger of the investigated drugs with phosphomolybdic acid (PMA) or phosphotungstic acid (PTA). The same procedure is done for carbon nanotubes chemically modified carbon paste electrodes with addition certain amount of multi-wall carbon nanotubes which have excellent effect for improving the performance characteristics of the studied electrodes for determination the investigated drugs. Carbon nanotubes chemically modified carbon paste electrodes have better conductivity, higher potential responses, faster response time, longer operational lifetime and wider linear concentration range than carbon paste electrodes due to carbon nanotubes possess unique geometric, mechanical, electronic, and chemical properties as high mechanical strength, high electrical conductivity, high thermal conductivity and high surface area.

Keywords:

Carbon paste electrodes; Ion selective; Selegiline; Meclofenoxate; Carbon nanotubes.

Name **:** **Amgad Ahmed El-Kady**

Faculty **:** **Agriculture**

Dept. **:** Agricultural Engineering

Degree **:** Ph.D.

Title of Thesis: Utilization of High-Intensity Pulsed Electric Fields as an Unconventional Non-Thermal Method of Liquid Foods Preservation

Supervisors : Dr. Mohamed Hashem Hatem, Dr. Yousry Bayuomy Abd El-Hay and Dr. Samir Mohamed Rabie

Abstract :

Increasing consumer demand for new products with high nutritional qualities has spurred a search for new alternatives to food preservation. Pulsed electric field (PEF) is an emerging technology for non thermal food preservation. Using this technology, enzymes, pathogenic and spoilage microorganisms can be inactivated without affecting the colour, flavour and nutrients of the food. PEF treatment may be provided by applying pulsed electric field to a liquid food product in a treatment zone between two electrodes at ambient, or slightly above ambient temperature. Exposure of microbial cells to the electric field induces a transmembrane potential in the cell membrane, which results in electroporation (the permeabilization of the membranes of cells and organelles) and/or electrofusion (the connection of two separate membranes into one) of the cells. The main focus of this work was to design an innovative PEF system that provides a uniform distribution of electric field, minimum increase in liquid temperature, minimum fouling of electrodes, an energy efficient and high safety system. An innovative pulsed electric field (PEF) unit was designed and constructed at Food Technology Research Institute using modern technology. The system consists of main equipments: high voltage pulse generator (10 – 80 kV) and treatment chamber. The treatment chamber was designed containing two electrodes that are electrically isolated from each other by an insulator element designed to form the treatment chamber where most of the electric field is concentrated. Electric field intensity in the range of (10-80 kV/cm) was applied with square bipolar pulses of 1 - 2 µs duration. The effect of PEF treatment on the inactivation of gram-negative Escherichia coli ATCC 25922 suspended in simulated milk ultra-filtrate (SMUF) of 100%, 66.67% and 50% concentrations were investigated. Treatments with the same electrical power input but higher electric field strengths provided larger degree of killing. The inactivation rate of E.coli was significantly increased with increasing the electric field strength, treatment time and processing temperature.

Kinetic analysis of microbial inactivation due to PEF and thermal treatment of E coli suspended in SMUF were also studied. Comparison between measured (experimental) and predicted (theoretical) variation of E.coli concentration with time following the PEF treatment was discussed. The treated liquid was re-treated more than once through the treatment chamber to provide higher microbial inactivation.

Keywords:

Pulsed Electric Fields (PEF); Bipolar square pulses; Microbial inactivation; Non-thermal food preservation Methods, Milk pasteurization.

Name **: Mostafa Mohamed Abd El-Hamid Helal**

Faculty **: Agriculture**

Dept. **:** Animal Production

Degree **:** Ph.D.

Title of Thesis: A Model for Marker-Assisted Selection for Fast Growth in Native Egyptian Chickens

Supervisors : Dr. Essam Abbas El-Gendy and Dr. Ahmed Mostageer Mostafa

Abstract :

The objective of this study was to use the data of growth patterns of local chickens accompanied with their molecular data to develop a strategy for marker-assisted selection for growth. Four lines were used and have been derived from a naturally heat resistant local breed in Egypt. They were a homozygous normally-feathered selected line (CE1), homozygous naked-neck selected line (CE3) and their corresponding control lines (CE2 and CE4). Lines CE1 and CE3 have been selected for high 6-wk BW for five generations. Three generations were obtained for this study. Lines CE1 and CE3 were significantly heavier at 6 weeks of age than their corresponding control lines CE2 and CE4 by 24.15 and 27.07% in the base generation and by 51.4 and 34.5% in the second selected generation. The differences reached to 57.1 and 62.8% at 18 weeks of age in the base generation and 49.3 and 28.7% in the second selected generation. Line CE1 was significantly heavier than line CE3 throughout the growing period. The total number of alleles per locus averaged 7.78 alleles. Polymorphism percentage averaged 50.1 and 55.1% in lines CE1 and CE3 versus 38.6 and 49.6% in lines CE2 and CE4. Percentage of unique alleles averaged 4.3 and 4.6% in lines CE1 and CE3. Many polymorphic allelic bands were differed in their frequencies between high and low performed families in lines CE1 and CE3. A total of 34 polymorphic alleles in 19 loci were flown over generations and the flow trends were different in different lines and families within lines. Principle component analysis was applied to the data of both lines and two main components were found and three canonical correlations were obtained. Four and five bands were persistently concomitant with the highly performed families in lines CE1 and CE3, respectively. These bands would have brought 6-wk BW into higher levels of performance by 25.1 and 16.6% in the second generation if they would have been considered in the selection for 6-wk BW.

Keywords :

Growth; Local chickens; Marker-assisted selection; Microsatellite markers.

Name **:** **Hany Abd El-Satar A. Sadek El-Kashef**

Faculty **:** **Agriculture**

Dept. **:** Dairy Science

Degree **:** M.Sc.

Title of Thesis: Properties, Preservation and Evaluation of Buffaloes' and Cows' Colostrum

Supervisors : Dr. Alaa Mohamed Abd El-Fattah and Dr. Fawzia Hassan Ragab Abd Rabo

Abstract :

This study was designed to follow the changes in properties of Egyptian buffalo and Holstein cow colostrum after parturition, select the proper heat treatment of buffalo and cow colostrum that would produce no significant changes in viscosity and IgG concentration, compare between freezing and freeze-drying methods for colostrum preservation and evaluate the safety of long-term consumption of Egyptian buffalo or Holstein cow colostrum on young Wistar rats. The obtained results illustrated that at calving, buffalo colostrum was characterized by significantly higher fat, lactose, ash, total solids, phosphorus, vitamin E, Val, Met, Ile, Phe, His, Lys, Asp, Pro, Cys, Tyr and IGF-1 as well as viscosity; and significantly lower Mg, Na, K, Zn, vitamin A, Ser, Glu, Gly, Ala, Arg and lactoferrin concentrations compared to cow colostrum. Also, data obtained showed that as the lactation period advanced, the levels of total protein, whey proteins, fat, ash, total solids, bioactive components (IgG, IgM, IGF-1 and lactoferrin), specific gravity, viscosity and titratable acidity in both colostrums decreased and those of lactose and pH conversely increased. As for essential and non-essential amino acids, macro- and micro elements, and vitamins A and E, data obtained showed some significant and non-significant changes in both colostrums during the first 5 days and after 14 days of parturition. Comparing with cow milk, buffalo milk had significantly higher fat, total solids, Ca, Mg, vitamin E, Ile, Phe, His, Lys, Cys, Tyr; and significantly lower Na, P, Cu, Zn, vitamin A, Leu, Asp, Gly and Ala concentrations on the fifth day of parturition. Heat treatment of buffalo and cow colostrum at 60°C/60 min could be sufficient to eliminate pathogens (Staphylococcus aureus, Salmonella spp. and Escherichia coli(and maintained colostral IgG

and fluid characteristics. Freeze-drying had no effect on the colostrum bioactive substances. The bioactive substances of frozen or freeze-dried colostrum decreased gradually during the six months of storage. The greatest influence of the storage was found on the concentration of IgM. The present study revealed that at the end of the experimental period (90 days), there was no difference between buffalo or cow colostrum-fed animals at dose of 0.5 ml /100g body weight of rat and the control group in clinical signs, hematology, most parameters of blood chemistry (carbohydrate metabolism, liver and kidney functions) and histological structure of liver, kidney and duodenum.

Keywords:

Buffaloes; Cows; Colostrum; Chemical properties; Quality; Preservation; Pafety.

***Name* :** **Hend Mohammad Saad Ibrahim**

***Faculty* :** **Agriculture**

***Dept.* :** Agricultural Botany

***Degree* :** M.Sc.

Title of Thesis: Botanical Studies on two Species of Senna Mill

Supervisors : Dr. Mohamed Abd El-Aziz Ahmed Nassar and
Dr. Hassan Ramadan Hassan Ramdan

Abstract :

Most of Senna species including those under study formerly belonged to the genus Cassia until reassigned recently to follow the genus Senna, but this process is not entirely complete and some corrections may still take place. Thus, any new information about Senna plants are urgently to be welcomed. It is aimed in this study to bring to light more information about the morphology and anatomy of two Senna species belong to the family Caesalpiniaceae, namely; Senna occidentalis (L.) Link and Senna sophera (L.) Roxb. This would be an effort to proper delimitation of these species in the genus Senna which are of great interest from an economic and medicinal point of view. The morphology of vegetative growth included: plant height, length and diameter of the main stem, number of internodes of the main stem, number of primary branches developed on the main stem, lengths of primary branches at maturity, fresh weight of leafless shoot per plant, total number of leaves per plant, total leaf area per plant and fresh weight of leaves per plant. Moreover, keen observations and descriptive morphology of the root and the shoot were under consideration. The morphology of reproductive growth included: flower bud differentiation, full blooming, fruit set and maturity. In addition, the yield characters at harvest time.

Name **:** **Nayera Mahmoud M. M. El-Atfehy**

Faculty **:** **Veterinary Medicine**

Dept. **:** Microbiology

Degree **:** Ph.D.

Title of Thesis: Genomic Comparison and Characterization of Salmonella Enterica Serovars by the Use of Different Molecular Techniques

Supervisors : Dr. Kamelia Mahmoud Osman and Dr. Mona Mehrez Ali

Abstract :

Out of 557 samples of different sources the incidence was 11.66%, whereas the highest percentage was 14.42% among ducks followed by pigeon (11.33%) then chicken (9.47%) while the lowest percentage of Salmonella isolation was from turkey (6.25%). The Salmonella serovars showed100% of Congo red binding affinity with different combining intensities and gave a broad-spectrum of haemagglutination patterns also showed a wide range of percentage of survival in duck's and chicken's sera for 3 hours (85.7% - 57 %) and for 6 hr (83.3% - 28.6%).also produced cytopathic effect in different degrees or even death of the Vero cells and MDCK cells also Embryo lethality assay showed (100%). The findings from the present study showed that the InvA gene was expressed in all the Salmonella serotypes by PCR and the virulotyping analysis for 10 virulence genes (avrA, bcfC, gipA, mgtC, ssaQ, sopB, sodC1, sopE1, spvC, and spi4D) by conventional PCR which showed that the dominant gene was sopB (97.1%) of the examined serovars followed by bcfC (95.7%), ssaQ (68.6%), avrA (64.3%), mgtC (54.3%), spi4D (52.9%), sodC1 (35.7%), spvC (28.6%), sopE1 (10%) while the gipA gene was absent .the SDS-PAGE was used to establish the relationship between the related serovars. It was noticed that the band 36 KDa shared in all S. Enteritidis and S. Typhimurium isolates and other Salmonella isolates(30/70), followed by protein bands between 20 to 24 KDa (18/70) . 94.3% of the isolates demonstrated multiple-resistance for all antimicrobial agents. Resistance prevalence was significantly higher among the poultry isolates than human isolates. Resistance to colistin sulphate was detected only among pigeon and human isolates and at an intermediate frequency. Also, resistance to ciprofloxacin was detected among chicken at a high frequency (100%) and at a low frequency among ducks (3%). The results of the sopB sequencing revealed complete identity (100%) between five of our selected examined Salmonella serovar isolated from different sources (5/6) while The untypable Salmonella serovar that was isolated

from the imported chicken (isolate number 69) showed several points of mutations (3 true mutations) resulting in grouping with S. Agona str. SL483 with identity (99.5%). The sequencing of the bcfC gene revealed the same results except the detection of five points of mutations in the untypable Salmonella serovar isolated from the imported chicken (isolate number 69 in this study) in, resulting in grouping with S. Newport str. SL254.

Keywords:

Salmonella virulence genes; Ducks; Chicken; Turkey; Pigeon; Human; Antimicrobial resistance; Outer membrane proteins; Prevalence; Serotyping.

***Name* :** **Heba Mohammed Mohammed Salem**

***Faculty* :** **Veterinary Medicine**

***Dept.* :** Poultry and Rabbit Diseases

***Degree* :** M.Sc.

Title of Thesis: Studies on Some Clostridial Enteric Diseases Affecting Weaned Rabbits in Egypt

Supervisors : Dr. Diaa Eldein G.A Khelfa and Dr. Wafaa Abd EI-Ghany Abd EI-Ghany

Abstract :

OA total of 714 samples were collected from 19 rabbits farms located in 8 Egyptian governorates representing Port-Said, Giza, Cairo, Beni Suef, Fayoum, El-Qaliubiya, El-Sharkea and El-Menoufia. About 676 samples including 582 rectal swabs, 60 intestine and 34 liver were obtained from 329 weaned rabbits. Moreover, 38 samples were taken from the farms environment as 18 sample from water and 20 from feed. The results showed that 293 (79.8%) ***Clostridial*** isolates were recovered from surveyed rabbit's farms, (78.7 %) were single infection while (1.08%) were mixed infection between different ***Clostridial*** spp. ***Clostridial*** strains were identified as 93 (26%) ***C. perfringens,*** 92 (25.7%) ***C. tertium,*** 51 (14.2%) ***C. sporogenes,*** 34 (9.5%) ***C. bifermentans,*** 14 (3.9%) ***C. septicum*** and 9 (2.5%) ***C. difficile***. **The isolated *C. perfringens*** were 89 (95.69%) toxigenic that differentiated by serological methods as well as conventional and multiplex PCR into single types representing 15 (16.12%) type (A), 4 (4.3%) type (B), 15 (16.12%) type (D) and 4 (4.3%) type (E) while mixed types of ***C. perfringens*** were 32 (34.4%) types (A and D), 4 (4.3%) types (A and E) and 15 (16.12%) types (B and D), while 4 (4.3%) were non toxigenic. Out of 38 environmental samples (20 feed and 18 water samples), 6 (15.78%) and I (2.63%) ***C. perfringens*** strains were respectively recovered. The incidence of ***Clostridial*** strains at Port Said, Giza, Cairo, Beni Suef, Fayoum, El-Qaliubiya, Al-Sharkia and Menoufia were 36.5, 36.5, 43.7, 42.5, 42.7, 43.2, 43.4 and 38.9%, respectively. Experimental infection of weaned rabbits with ***C. perfringens*** types A, B, D & E and ***C. difficile*** by both oral and SIC routes revealed that mortality was high in lst day post infection and commonly observed signs were diarrhea and bloat. The post mortem findings were enteritis, typhlitis, hepatitis and congestion in both kidney and spleen. The histopathological changes were confirmatory to the post-mortem lesions. The performance parameters showed significant decrease in the challenged groups. The in-vitro sensitivity of the most prevalent toxigenic

types of ***C. perfringens*** as well as ***C. difficile*** indicated that all types were highly sensitive for Amoxicillin I Clavulanic acid and Ampicillin, whereas they were resistant to Colstine, Erythromycin and Lincomycin.

Keywords:

Weaned rabbits; Clostridium species; Egypt; Per; Serotyping; Infection; Antibiotics.

Cairo University

Inter/Multidisciplinary and Future Sciences Sector

- National Laser Institute
- African Studies Institute
- Institute of Statistical Studies and Research

Name **: Ahmed Abd El-Wahab Gomma El-Shahawy**

Institute **: National Institute of Laser Enhanced Sciences**

Dept. **:** Photochemistry & Photobiology

Degree **:** Ph.D.

Title of Thesis: Laser and Magnetic Resonance as Hyperthermia Treatment of Subcutaneous Ehrlich Carcinoma Model by Using Metallic and Magnetic Nanoparticles

Supervisors : Dr. Hesham Ali Shokier, Dr. El-Sayed Abd El-Mageed El-Sherbini, Dr. Mohamed Awad Aggag and Dr. Mahmoud Mohamed Saber El-Basiouny

Abstract :

There is renewed interest in magnetic and plasmonic photo-thermal hyperthermia, as a cancer treatment method. In the current study, super paramagnetic iron oxides nanoparticles, gold nanospheres and gold-iron oxide core shell nanoparticles were prepared and characterized for inducing hyperthermia to treat subcutaneous Ehrlich carcinoma implanted in female Swiss albino mice through three treatment techniques (Magnetic, Optical and Magneto-Optical) resonance hyperthermia .The maximum temperatures achieved in the tumors were 45±2.0°C, 50±1.5°C, 58±2.0°C, respectively. The results revealed that, all mice treated by the first two techniques, the tumors were still as the same as before the treatments, as well as the rate of tumors growth were very slow if compared with the control mice. In contrast more than 50% of the mice treated with the third revealed a complete disappearance of the tumor. So, this simple, non-invasive method shows great promise as a treatment technique for clinical setting.

Keywords:

Magnetic; Optical resonance; Hyperthermia; Nanoparticles; Ehrlich carcinoma.

Name **:** **Moustafa Mohammed Attia Sayed**

Institute **:** **National Institute of Laser Enhanced Sciences**

Dept. **:** Laser Application in Metrology, Photochemistry and Agriculture

Degree **:** M.Sc.

Title of Thesis: Laser Light Effect, Fluorescence and Image Analysis for Quality Evaluation of Oil during Maturity Stages of Olive

Supervisors : Dr. Helmy El-Sayed Hassan Mohamed and Dr. Abd El-Rahman Abd El-Raouf

Abstract :

The aim of this study was measuring and determination of the optical properties using visible laser, image processing according to color properties and Fluorescence from olive oil during maturity stages of olive (Arbequina variety). The obtained results are as follows: Stage one was high reflection intensity percentage or low absorption intensity percentage followed with high moisture content and low oil content percentages. Meanwhile, stage five has low reflection intensity percentage or high absorption intensity percentage with low moisture content and high oil content percentages. So, stage four is considered suitable for oil extracting, because of low moisture content 40.41 % and high oil content 19.22%. It is a suitable standard to identify olive maturity stages to get high oil percentage according to optical properties. Color properties measurements as Hue degree, Saturation value, and Brightness (HSB) for maturity stages were (77.32, 56.74 and 70.96 value), (57.08, 33.06 and 70.84 value), (22.36, 40.08 and 81.54 value), (352.98, 41.86 and 41.24 value) and (329, 8.78 and 19.34 value) for maturity stages one, two, three, four and five respectively. The differences of fluorescence intensity during maturity stages for olive oil can be used for classification of oil according to its chemical components, and qualitative analysis evaluation of some fluorescent component of interest for identifying olive oil during maturity stages.

Keywords:

Laser light; Fluorescence; Image analysis; Olive oil; Maturity stage.

***Name* :** **Tamer Mahmoud Ahmed Abd El-Wahab**

***Institute* :** **African Research and Studies**

***Dept.* :** Anthropology

***Degree* :** Ph.D.

Title of Thesis: An Orthopantomographic Study for Age and Sex Estimation: A Comparative Study Among Egyptians and Tunisians Adults

Supervisors : Dr. Nancy A.F. Khattab and Dr. Azem M.A. Marzouk

Abstract :

Background & Objectives: Bioanthropological research must be built upon a foundation of accurate age and sex estimates. Age and sex estimation from dental radiographs is a non-destructive, simple method to obtain information. The objectives of the present dissertation were to analyze six dental age and sex estimation methods regarding their comparative validity and practical implementation using 600 digital orthopantograms. Furthermore, a purpose of the investigation was to supplement the literature with data on dental age and sex estimation in Egyptians and Tunisians individuals. **Methods:** The orthopantomograms were selected based on the inclusion and exclusion criteria set forth for the study. Aging and sexing of modern Egyptian and Tunisian populations as follows: Sex assessment using discriminant Function analysis of mandibular measurements, mandibular ramus flexure and of mandibular canine index, The estimated gender was then compared with the known gender and percentage accuracy of determination was calculated, while age was assessed using orthopantomographic indices of the pulp of mandibular canine namely coronal pulp cavity index, pulp-tooth area index and linear measurement of the pulp cavity. **Results:** The results showed that the mandibular ramus flexure, mandibular canine index and discriminant function analysis for sex determination among the study populations using digital orthopantomogrms can be used to diagnose sex with an average accuracy up to 86%. Similarly the pulp tooth area, the coronal pulp cavity index and linear measurement of pulp were used for age estimation using mandibular canines, statistically significant correlation between age and the study variables was revealed. This work revealed no significant difference between chronological and estimated ages. Different equations for age estimation in the resent research yielded an error of age estimation about 2.5 years as a mean value for both the Egyptians and Tunisians which is much lower than most that of anthropological methods.

Moreover, it was shown that a combination of variables potentially leads to increases of the predictive power beyond the capabilities of each method alone for both age and sex estimation. A new function for sex determination for the Egyptians and Tunisian was derived as population specific method for sex determination that yielded a more accurate sex estimate. **Conclusion:** Consequently, it was concluded that, this research showed promising results for dental age and sex estimation in a non-invasive manner using dental digital orthopantomograms of Egyptian and Tunisians populations. Moreover, population-specific equations were introduced to enhance the accuracy of the estimates. Future research should aim at acquiring larger sample sizes, in order to reduce standard errors of age and sex estimation, and studying the effect of race, culture and pathology on model parameters. Also the application of the proposed methods in forensic and archeological contexts.

Keywords:

Orthopantomgarms; Age estimation; Sex determination egyptians; Tunisian; Discriminant Function analysis; Mandibular measurements; Regression equations.

Name **:** **Gamal Mohamed Attia**

Institute **:** **African Research and Studies**

Dept. **:** Geography

Degree **:** Ph.D.

Title of Thesis: An Manufacturing industries in the state of Khartoum: A Study in Economic Geography

Supervisors : Dr. El-Saed Ibrahim El-Badawi

Abstract :

The study contains an introduction and a preface, six chapters and a conclusion. The introduction provides reasons for selecting the topic and objectives of the study, Approaches, methods, previous studies, sources of study, field study and the difficulties faced the study. The preface includes a geographical glance on the state of Khartoum and then follows the stages of the development of manufacturing industries. The first chapter deals with the geographical distribution of manufacturing industries and geographical factors affecting the manufacturing industries in the state. Second Chapter discusses the industrial localization in the state, factors of localization in every industry and industrial evaluation of localization in the state in respect of the model of Hamilton. Third Chapter deals with the size structure of the manufacturing industries. The fourth chapter analyzes the problems of manufacturing industries. The fifth chapter deals with the future of industrial development, Sixth Chapter examines the map of land use in Khartoum Bahri industrial area as a case study The study concludes that the manufacturing industries in the state of Khartoum passes through three stages: the first stage is the stage of the traditional industries that prevailed during the period 1821 - 1956 during the Turkish rule , the rule of Mahdia and bilateral rule.. The second stage is the manufacturing industries oriented to replace imports. This stage extends 1956 - 1992. The third stage is the stage of export-oriented industrialization which started since 1992. The study concluded that the manufacturing industries in the state of Khartoum are concentrated geographically in the localities of Khartoum, Khartoum North, East of the Nile and Omdurman, respectively. A set of geographical factors were impacted on the geographical distribution of manufacturing industries; the most influential factors were water, land, power sources, education services and population density. The study also realized that the manufacturing industries in the state of Khartoum is localized in El mokhtar administrative unit in the locality of Khartoum North and Omdurman North, Omdurman South and El thwera elsnaate administrative Units in the locality of

Omdurman. It also localized in administrative Units of Khartoum, Khartoum West and Khartoum East in the locality of Khartoum. The study also found that the manufacturing industries in the state were dominated by the pattern of small and medium industries. The study has completed to show a range of problems affecting the manufacturing industries in the state; the most influential problems were funding problems, different taxes and fees, poor administrative capacity and competitiveness. The study deal with the effects of these problems, most notably many industrial plants are out of work. The study of the problems resulting from the manufacturing industries in the state show that the potential impact of manufacturing on the Nile water pollution , contributing to climate change and expectations of an increased incidence of malaria. In The future of industrial development in the state, there will be several changes in manufacturing industries. Qualitatively, Spatially, Functionally, as well as the trend towards integrated industries. The study concluded that the levels of industrial use in the industrial area of bahri are four types: The first type, blocks are the level of using less than 50% of the total area of the block such as blocks (1&7).The second type, blocks ranging rate of land use between 50-60%, such as blocks (2&6) . The third type, blocks ranging rate of land use between 60-70%, such as blocks (3& 5&2 Kafoury. The fourth type, blocks represent using areas more than 70%, such as blocks (4&8).

Keywords:

Ecomomic geography; Khartoum state; Manufacturing industries; Sudan.

***Name* : Elham Ahmed Abd El-Kader**

***Institute* : African Research and Studies**

***Dept.* :** Earth Resources

***Degree* :** Ph.D.

Title of Thesis: Study of Heterogeneous Catalysed Transesterification Reaction for the Production of Bioenergy (Biodiesel) From Jatropha Oil in Africa

Supervisors : Dr. Tarik Mohamed Labib, Dr. Abbas M. Sharaky, Dr. Guzine Ibrahim El-Diwani and Dr. Salwa Ismail Hawash

Abstract :

This work focuses on the development of using heterogeneous catalysts for biodiesel production from nonedible vegetable oil (Jatropha curcas oil, JCO) with moderate free fatty acid content (3%). Solid-base catalyst as (CaO) and acid catalyst as (S-ZrO_2) were prepared. The ability of CaO as a potential heterogeneous catalyst was investigated in broad range while acid catalyst (S-ZrO_2) was also tested for single step simultaneous esterification and transesterification. Transesterification of JCO using CaO as solid super base catalyst was studied under mild conditions, through bench scale experimental work. Effect of molar ratio of methanol to oil, reaction time, mass ratio of catalyst to oil were investigated while transesterification using subcritical methanolysis has been studied under different conditions of temperature (from 120 to 250°C), pressure (from 6 to 37 bars) and time (from 10 to 60 min.) using super base CaO. Two different weights of acid catalyst (S-ZrO_2) were studied at temperature (120°C). The reaction products were tested for their content of biodiesel and purity of glycerol using High Performance Liquid Chromatography (HPLC) technique. Results of catalyst CaO preparation concluded that: increasing the calcination temperature of CaO to 900ºC (up to decomposition temperature of $CaCO_3$) after dipping in ammonium carbonate increases the basicity of the catalyst which is an important property for catalyst activity in the transesterification reaction. Experimental results at atmospheric pressure.

Keywords:

Biodiesel; Calcium oxide; Solidbase catalyst; Transesterification; Methanolysis.

Name **:** **Dalia Moustafa Hamdy El-Heshe**

Institute **:** **African Research and Studies**

Dept. **:** Natural Resources

Degree **:** M.Sc.

Title of Thesis: Geochemistry of Copper- Gold Deposits in the Nubian Shield; Case Study : Atud Gold Mine, Central Eastern Desert, Egypt

Supervisors : Dr. El-Sayed Ibraheim Gaber, Dr. Abbas Mohamed Sharaky and Dr. Mohamed Mohamed Mansour

Abstract :

The present work deals with the geology of gold deposits at Atud gold mine area. Central Eastern Desert, Egypt. The basement complex of the Eastern Desert is characterized by abundance of metamorphosed volcanic and volcano-sedimentary successions of greenshicst facies, dismembered ophiolitic complex, gabbro- diorite- tonalite- series, and unmetamorphosed volcanic and pyroclastic sequences. The gold deposits occur in different rock types of the Nubian Shield of the Eastern Desert. The Atud gold mine is considered to be a mesothermal vein type gold deposit containing quartz veins hosted mainly in Neoproterozoic dioritic rocks. it is spatially and genetically associated with a metagabbro-diorite complex emplaced at shallow levels in serpentinite and metasedimentary rocks. Petrographically, the gabbroic rocks of Gabal Atud comprise different petrographic varieties namely; olivine gabbro, pyroxene hornblende gabbro and altered hornblende gabbro. Using satellite imagery and aerial photographs for the study area, a geologic map showing the field relations, structural elements and startigraphic lithology was described and discussed. Geochemical analyses, petrochemical calculations, and plotting on the international binary and ternary diagrams revealed that the serpentinites belongs to the metamorphic dunite, and lherzolite associated with ophiolites. The metagabbros are of tholeiitic nature and are of the cumulate type. The gabbro rocks are of subalkaline nature, and plot mainly at tholeiite field. All of the gabbro samples clustered in the field of island arc ocean floor basalts. Copper-gold mineralization at the Atud mine occurs as fracture-filling auriferous quartz veins hosted in Neoproterozoic dioritic rocks and along their contact with metagabbro. Gold mineralization is associated with metasomatic alteration zones around shear zones and

quartz-carbonate vein arrays. The mineralized veins consist of quartz, carbonate and albite gangue enclosing minor amounts of pyrrhotite, arsenopyrite, pyrite and sphalerite. Trace amounts of galena, chalcopyrite, magnetite and rutile are also present.

***Name* :** **Vevreen Saad Abd El-Magied**

***Institute* :** **African Research and Studies**

***Dept.* :** Languages

***Degree* :** M.Sc.

Title of Thesis: The Dramatic Phenomena in Hausa Literature - Literary Study

Supervisors : Dr. Sabry Ibrahim Salama

Abstract :

The aim of this study is to shed light on the aspects of Hausa Drama as an example of the African Drama through analyzing its different stages of development and discussing three Hausa namely:

1. Wasan Marafa.
2. Matar Mutum Kabarinsa.
3. Taka Tsan- Tsan.

This study depends on an integrative approach. The study is divided into 3 sections: introduction, 3 chapters, and conclusion. The study adresses the factors behind developing Hausa drama as follows:

The first chapter: discusses the main aspects of Hausa drama and litetrature in the light of African literature. It also discusses the origins of Hausa drama and plays.

The second chapter: sheds light on the different stage characterizing the development of traditional, new and contemporay Hausa drama.

The third chapter: discusses the artistic techniques of Hausa plays through analyzing the artistic structure of such plays. It also deals with the issues of content of Hausa plays with regard to how the playwright composed the contents of their plays.

Keywords:

Literature; Drama; Hausa; African literature; Hausa literature; African drama; Hausa drama.

Name **:** **Tareq Abd El-Aziz M. El-Doub**

Institute **:** **Statistical Studies and Research**

Dept. **:** Statistics

Degree **:** Ph.D.

Title of Thesis: Statistical Properties of Estimators for Variable Coefficients Models

Supervisors : Dr. El-Houssainy Abd El-Bar Rady and Dr. Ahmed Hassen Youssef

Abstract :

Many approaches have been developed to face the estimation problems in panel data; such as Generalized Least Square (GLS) technique which is used in Swamy (1970), and Generalized Method of Moment (GMM) which is used in Hansen (1982) and Verbeek (2004). Generalized Least Square is a known procedure used in estimating the unknown parameters in the linear regression model and it can be used in situations where Ordinary Least Squares (OLS) is statistically inefficient, or gives misleading inferences. The GMM is a very general statistical technique for obtaining estimates of parameters of statistical models. Many estimators are known as special cases of (GMM) such as (OLS), Instrumental Variables (IV) and two Stage Least Squares (2-SLS). The study is concerned with solving the problem of the negative variance concerning the (GLS) method and hence a comparative study of (GLS) and GMM procedures with Simple Panel Data (SPD) and Multiple Panel Data (MPD) is introduced and discussed simulated data from several models that we used to compare the two procedures under different conditions of panel data such as: ample sizes, models, parameters values, and standard deviation. For comparison, we applied the bias, the Mean Square Error (MSE), the Variances and the rate of Negative Variances. We found from the above mentioned approaches that (GMM) is more capable and accurate in estimation than (GLS) in case of random coefficients and nonnegative definite. Finally, a criminal statistics data from ministry of interior (MOI) in state of Kuwait were used. We first have to test the coefficients variation to proved that the coefficients was random or fixed in the real data and we found that the coefficients are random and (GMM) was better in sense of (MSE) than (GLS) in case of random coefficients which support our simulation study.

Keywords:

Generalized Least Square (GLS); Generalized Method of Moment (GMM); Simple Panel Data (SPD); Multiple Panel Data (MPD) and Mean Square Error (MSE).

Name **:** **Ahlam Mohamed Saad Hussein**

Institute **:** **Statistical Studies and Research**

Dept. **:** Mathematical Statistics

Degree **:** M.Sc.

Title of Thesis: Quasi-Bayesian Estimation

Supervisors : Dr. El-Sayed Ahmed El-Sherpieny

Abstract :

In this thesis we consider the quasi-likelihood and quasi-Bayesian estimation as our main estimation techniques. We derive the quasi-likelihood estimation for unknown parameters of the two parameters Gamma distribution. On the other hand, we consider and derive the quasi-Bayesian estimators of the unknown parameters of the Gamma distribution. For comparison purpose we use; maximum likelihood estimators, the principle of maximum entropy (POME) estimators and the Bayesian estimators using Lindley (1980) approximation which performed by Pradhan and Kundu (2011). We investigate the performance of the proposed estimators of the shape and the scale parameters and the compared methods through a simulation study.

Keywords :

Quasi Likelihood Function; Quasi Bayesian Likelihood; Principal of Maximum Entropy (POME); Gamma distribution.

Cairo University

Humanity and Educational Sciences Sector

- Arts
- Archaeology
- Dar El-Ulum
- Kindergarten Education
- Specific Education
- Institute of Educational Studies

Name **:** **Mohamed Mabrouk M. Koutb**

Faculty **:** **Arts**

Dept. **:** Modern History

Degree **:** Ph.D.

Title of Thesis: The National Bank of Egypt and its Role in the Egyptian Economy, 1898-1960 C

Supervisors : Dr. Mohammed Afifi Abd El-Khaliq

Abstract :

The study, **"The National Bank of Egypt and its Role in the Egyptian Economy, 1898-1960"** Has necessitated the study, divided into six chapters preceded by a preface, followed by a conclusion, the boot came outlines the banking system before the establishment of National Bank of Egypt. **The first chapter,** "The National Bank of Growing up and his Regime between Support and Opposition" came to explaining the objectives of the Bank and the development of the administrative structure and the problem of growing up during Britain's position and the Egyptian government and the Egyptian people. Then singled out **Chapter II,** "National Bank of Egypt central bank" to address the National Bank of stages of transformation to a central bank. With Regard to **Chapter III,** "National Bank and the evolution of its functions (systems version - exchange control - control of the banks)," has dealt with these tasks and provided each with the appropriate detail. As for the Economic role of the Quarterly National Bank came fourth and fifth study addressed the role of saluting the National Bank in the credit "agricultural - industrial - commercial" as well as its role in the crisis. Finally came the sixth chapter (the National Bank "Egyptianization - nationalization - Partition"), explaining that the three developments experienced by the bank during his career. The search is over conclusion include the most important outcomes of this research.

Keywords:

National bank of egypt; Central bank of egypt; Banknotes; Agricultural credit; Industrial credit; Trade credit; Egyptianization; Nationalization; Division; Crisis.

Name **:** **Nasra Mansour Abd EL-Mageed**

Faculty **:** **Arts**

Dept. **:** Psychology

Degree **:** Ph.D.

Title of Thesis: Emotional Intelligence and Love Between Married Couples as Predictors of Marital Satisfaction

Supervisors : Dr. Fadia Elwan and Dr. Osama Abou Sree

Abstract :

The present study aimed at examining the role of emotional intelligence and love between married couples as predictors of marital satisfaction. A sample consisted of 200 husbands and their wives (100 husbands & 100 wives), the age of sample ranged from (25-40) years. three scales were used: Emotional Intelligence Scale for Husbands and Wives, prepared for this study, Triangular Love Scale (Sternberg, 1997), and Marital Satisfaction Scale (Fowers & Olson, 1993), translated by researcher. Results in general indicated that love was the first significant predictor of marital satisfaction for all hypotheses. husbands´ emotional intelligence and love were contributed to predict their own marital satisfaction. although husbands´ love was contributed to predict their wives ´ marital satisfaction, the results not supported the role of emotional intelligence in predicting their wives´ marital satisfaction, also, wives´ love was contributed to predict their own marital satisfaction whereas the results not supported the role of emotional intelligence in predicting their own marital satisfaction. Results showed also that wives´ emotional intelligence and love were contributed to predict their husbands´ marital satisfaction . Further, these results supported the importance of emotional management as the only dimension in predicting marital satisfaction compared to the other dimensions of emotional intelligence. on the other hand the results revealed that the dimensions of love (intimacy, passion, and commitment) were the strongest predictors of marital satisfaction, as well, husbands´ intimacy was a strong predictor of both their own and their wives´ marital satisfaction while wives´ passion was found to be the strongest predictor of their own marital satisfaction and their husbands´ marital satisfaction.

Keywords:

Intelligence; Emotions; Emotional intelligence; Love; Marital satisfaction.

Name **:** **Kareem Ahmed Abd El-Baky Aly El-Saiad**

Faculty **:** **Arts**

Dept. **:** Philosophy

Degree **:** M.Sc.

Title of Thesis: Theory of Right in 'Ilm Usūl Al-fiqh, A Study in the Islamic Methodology

Supervisors : Dr. Mostafa Labeeb Abdel Ghany and Dr. Hassan Hanafi Hassanein

Abstract :

This research studied Theory of Right in 'Ilm Usūl Al-fiqh which is considered as the methodological traditional Islamic science. It concentrated on the concept of right of traditional Muslim scholars ('Ulamaa') of fundamentals of comprehension ('Ilm Usūl Al-fiqh), from Al Shafi'i (died 204 AH) to our days and on the question of human rights in the context of Islamic legal thought. The research used several methods: The **historical** method in the first part, the **structural** method in the second part and the **comparative** method also in the second part. Two parts formed the main body of this research; each of them had three chapters and a conclusion, in addition to an introduction and a final conclusion. **The introduction** exposed the main question of the research, methods used within it and a critical revision to certain related studies of the most important ones under the topic of human rights in Islam. The **first part:** "Evolution of Theory of Right" was devoted to the historical pursuing of theory of right in 'Ilm Usūl Al-Fiqh. It consisted of three chapters; the first of them explained the way in which the historical method here was used . The second was the very pursuing of the historical evolution of the theory. The third studied the curve of the historical evolution of the theory, and the historical, theoretical and systemic factors which affected that curve. The **second part:** "Structure of Theory of Right" was devoted to the study of the structure of the theory. Its first chapter exposed the way of using the method and the forms of the structure of the theory throughout its history. Its second chapter was the anatomy of the structure in four levels different in depth. The third chapter exposed the conclusion from the anatomy of the structure and studied the nature of right and law in 'Ilm Usūl Al-fiqh comparatively with certain western systems of legal philosophy, like of Kant, Jeremy Bentham, John Austin and others.

The **conclusion** was spared for the exposition of the main results of the research, and the researcher's situation towards the question of human rights in the context of Islamic legal thought.

Keywords:

'Ilm Usūl Al-Fiqh; Philosophy of law; Islamic philosophy of law; Theory of right; Concept of right in 'Ilm Usūl Al-Fiqh; Human rights.

Name **:** **Hossam El-Din Mossad M. El-Zalabany**

Faculty **:** **Arts**

Dept. **:** Ltorsries. Archives and Information science

Degree **:** M.Sc.

Title of Thesis: A Recommendation of Printing on The Expenses of University and Exchanging with Forgin Universities

Supervisors : Dr. Osama El-Sayed Mahmoud

Abstract :

An experimental study aims to shed light on the aspects of contacts between the Field of libraries, Information Science and E-Iearning; to be able to deal with the binary relationship between the two fields, and to offer the opportunities of inteqration between E-Iearning system and libraries' services. The thesis includes 4 chapters. **The first chapter** illustrates the concept of Distance Learning and its tools which have been developed according to the development of computer technology, Internet, soft ware packages which are designed especially for E-Iearning. It also reviews the Information Behavior change of the students and scholars which has been accord due to learning through this way, and thereto the changes in this Behavior which caused reluctance in the use of available information resources through libraries. With known the general and partial factors which affected the scholar's information Seeking behavior; in order to know the role of libraries in supporting beneficiaries and keep up with this change. As well as reviewing some of the comments upon the way of designing the Information retrival system which was directed to the scholars in the e-Iearning environment. **The second chapter** deals with the importance of the library services which was provided to E- learning. The desired integration between systems of E- learning and these services and the challenges which face this integration which is associated with technology, information resources and the Man power, also reviews the types of services that libraries may be submitted in an integrated manner with systems of E- learning, and services which is linked with information resources with educational elements, chapter ends with a proposed model for the integration of library's services and systems with learning management systems. **Chapter three** includes the opportunity to utilize E- learning to support specialty of libraries and information in addition to the libraries' services. It is also deals with the experiments of the learning exploitation of the academic departments, libraries, Institutions and professional associations.

With reviewing the current usage of E-Iearning to teach libraries' science in all over the world compared with the local and regional situation from depending on E-Iearning in this field, finally this chapter ends with presenting service of E-Iearning centre which has applied in some German libraries, so as to provide training programs for beneficiaries in the nearby libraries to them. The thesis ends with **Chapter four** which includes the experiment of learning which has been applied upon 71 students from the 4th grade in the department of libraries in year 2010-2011, who were using integrated automated systems, starting from the reasons of choosing this curriculum, the characteristics of the study population, the tools of experiment from choosing the sample of study, the steps of preparing a curriculum and an experiment, and finally the statistical study and the hypothesis which assured that the E-Iearning has exceed the traditional learning.

Keywords:

Distance learning; E-Learning; Software packeges for distance learning; Distance learning for library and information science; Library services for distance learning.

Name **:** **Mansour Mohammed Abd El-Razek**

Faculty **:** **Archaeology**

Dept. **:** Islamic Archaeology

Degree **:** Ph.D.

Title of Thesis : Bublic Hammams in Aleppo from the Beginning of Ayyubid Period to the End of Ottoman Stage A Comparative Archeological Study

Supervisors : Dr. Mahmuod Ibrahim Husien and Dr. Mahmuod Morsy Morsy

Abstract :

This research study the bublic Hammams in Aleppo since the beginning of the Ayyubid period to the end of Ottoman stage, indicating to the city of Aleppo and the emergence of the bublic Hammams on it by following the reasons that led to the large numbers with indicating to distribution on different parts of the city, explaining the reasons that influenced on lt`s collection, and study sources of supply of these buildings to water and how to access to and distribution at its various units and how to spend it after use, also discussed how these Hammams work, and the stages of bathing on it, this research involved also a study of effaced Hammams and descriptive study to Hammams which still remains on the city under the period of study, in addition to the analytical study that involved the architectural plans for Hammams, different units, and architectural elements, addition to study raw materials and decorative elements used in the architecture and decoration, in the end the research contains a comparative study between bublic Hammams on Aleppo, Damascus and Cairo.

Keywords :

Aleppo; Hammams; External; Mediator; Internal; Fireplace; Domes; Vaults; Corridors; Pools.

***Name* :** **Anwar Ahmed Selim Mohamed**

***Faculty* :** **Archaeology**

***Dept.* :** Egyptology

***Degree* :** Ph.D.

Title of Thesis: The Governors of 2nd Province of Upper Egypt Till Thirtieth Dynasty, A Historical Archaeological Study

Supervisors : Dr. Mohamed Abd El-Haleem Nur El-Din

Abstract :

This Thesis is divided into; An Introduction, Preface, and four Chapters, as well as the results, plates, the Bibliography, and Appendixes.

- Preface is dedicated to Geographical site of 2nd Province of upper Egypt and The Political situation, economic, and Religious of 2nd Province as well as the Cemeteries.

- **Chapter one** deals with The Governors of 2nd Province of upper Egypt in Oldkingdom,"Isi-Qar-Khu their titles, their Genealogy, and their Monuments.

- **Chapter two** deals with The Governors of 2nd Province of upper Egypt in,. 1st intermediate period Ankh ty fy, His titles, his Genealogy, his role in Edfu and his Monuments.

- **Chapter three** is dedicated to The Governors of 2nd Nome of upper Egypt since the Middle kingdom till the end of New kingdom era ,includes the Provincial Administration , The Governors , their titles, their Genealogy, their role in Edfu and their Monuments.

- **Chapter four** is dedicated to The Governors of 2nd Province of upper Egypt since 21th Dynasty till the end of 30th Dynasty ,includes the Provincial Administration in the third intermediate period and in late period , The Governors , their titles, their Genealogy, their role in Edfu and their Monuments.

Keywords:

Edfu; Governors of edfu; Priest; Provincial administration; Central administration; Thebes; Southern vizier.

Name **:** **Abd El-Rahman M. El-Amin I. Mahmoud**

Faculty **:** **Archaeology**

Dept. **:** Conservation

Degree **:** M.Sc.

Title of Thesis : Experimental Study on the Effectiveness of Natural Materials Used for the Protection of Mummies Against Deterioration Caused by Insects, with Application to an Ancient Mummy

Supervisors : Dr. Gomaa Mohammed Mahmoud Abd El-Maksoud, Dr. Ezz El-din Abd El-Samiah El-Shazly and Dr. Fatehy Abd El-Aziz Afifi

Abstract :

This research includes six main chapters:

Chapter One: Introduction

Chapter Two: Literature Review

This chapter is divided to four parts: Part One: Mummification Process; Part Two: Natural Materials Used in the Mummification Techniques; Part Three: Insects that Cause Damage to Mummies; Part Four: Materials Used Against Insects.

Chapter Three: Materials and Methods

This chapter is divided into two parts: Part One: Materials Used; Part Two: Methods Used.

Chapter Four: Effect of Insects on Mummified Samples

This chapter was divided into two parts: Part one: Effect of Insects on Mummified Samples in the Short Term; Part Two: Effect of Insects on Mummified Samples with long-Term.

Chapter Five: Biological Activity of Plant Extractions Against Leather Beetle Larvae Dermestes Maculatus

This chapter is an assessment of the effectiveness of chosen plant extracts (cedar wood oil) (Cedrus libani A. Rich subsp. Atlantica), cassia (Cinnamomum cassia), azadirachtin, tea tree oil (Melaleuca alternifolia) against Dermestes maculatus larvae.

Chapter Six: Applied Study

This chapter includes a historical, analytical and treatment study of a gazelle mummy dating to the Late Period, housed in the Agricultural Museum, Giza, Egypt.

Keywords:

Mummification materials; Dipteral; Coleopteran; Deterioration; Diological activity; Cedar wood oil; Cassia; Azadirachtin; Tea tree oil; Conservation.

Name **:** **Fatima Abd El-Motaleb Mahmoud**

Faculty **:** **Dar El-Ulum**

Dept. **:** Literary Studies

Degree **:** Ph.D.

Title of Thesis: The Image of Arab Women in Modernist Arabic Poetry

Supervisors : Dr. Abd El-Hamid Ibrahim Shiha

Abstract :

The research has examined the image of women in the modernist poem. This analysis is based on an observation of the relationship between man and woman in reality according to the poet's depiction, and then in comparison to the image of the same relation as depicted in this poems. The research analyzes the image of woman as a symbol which reflects multiple meanings. For example, the poet uses the image of woman in his poem to indicate the place as a motherland, and also to indicate the value of heritage, when he deals with historical and religious models of women.

Keywords:

Arabic poetry; Modernist poem; The image of women; The symbols of women.

Name **:** **Ehab Saud Mohammad Morsy**

Faculty **:** **Dar El-Ulum**

Dept. **:** Grammar and Offers

Degree **:** M.Sc.

Title of Thesis: The Sentence Structure System and its Role in the Cohesion of the Text in the Poetry of Ibn El Fared

Supervisors : Dr. Shaaban Salah and Dr. Moustafa Iraqy

Abstract :

This research is titled [the sentence structure system and its role in the cohesion of the text in the poetry of Ibn El fared] subject revolves around two issues: first to specifically include the installation of different patterns in the poetry of Ibn El fared; to detect the most important structural properties that Inmaz by his hair. The second; is represented in the statement of the impact of the structural coherence of the sentence in the text. Thus, the ultimate goal of this research is to study the structural system of the phrase in the poetry of Ibn El fared; to try to detect the contribution of the structural coherence in the text. And the poetry of Ibn El fared just a practical model; that is not taught to the same as what was taught to strengthen the idea of theory in research; Valmqarbh text of the research can be applied to any other provision, whether text, poetry or prose; but the results will be different depending on the type of text, depending on the style product text.

Keywords:

Depending; Ibn el fared; Cohesion; System; The text; The poetry; Coherence; Apractical model; The idea; Whether.

Name **:** **Rehab El-Said El-Sawy Mohamed El-Sawy**

Faculty **:** **Kindergarten Education**

Dept. **:** Psychology

Degree **:** Ph.D.

Title of Thesis: The Effectiveness of a Program to Develop Auditory Perception and Readiness to Read for the Kindergarten Child with Learning Difficulties

Supervisors : Dr. Botrus Hafez Botrus

Abstract :

Hence this study is to answer the main question: Can the used program that lead to the development of auditory perception and reading readiness of kindergarteners with learning difficulties? The final study sample consists of (21) children from the second year of kindergarten in Alexandria who suffer from deficiencies in their the academic skills of audio perception and reading readiness, whose ages range between the ages of time (5-6) years, Achieving the objectives of the study requires the use of certain tools and the following standards:

l) Stanford scale-home of intelligence, the fourth image: prepared by Louis Malika (1998).

2) Measure of the social economic, and cultural measure of the Egyptian family: prepared by / Mohamed Bayoumi Khalil (2000).

3) A list of early detection of developmental learning difficulties inprschool children: prepared by Suheir Kamel (2010).

4) A Battery for those with developmental learning difficulties.

5) A measure of auditory perception of kindergarten children with learning: prepared by the researcher.

6) A measure of readiness of kindergarten children with learning difficulties: prepared by the researcher.

Keywords:

Program; Develop auditory perception; Readiness to READ; Kindergarten child with learning difficulties.

***Name* :** **Hanaa Abd El-Monem Atteya Kamel**

***Faculty* :** **Kindergarten Education**

***Dept.* :** Educational Science

***Degree* :** Ph.D.

Title of Thesis: Parental Education Philosophy and Role in Educating Pre-School Child in Light of the Directives of Quran Kareem and Sunnah of the Prophet

Supervisors : Dr. Monaa Mohamed Ali Gad and Dr. Gaber Mahmoud Tolba

Abstract :

The study aims at identifying the Parental education philosophy and role in educating pre-school children in light of the directives of Quran Kareem and sunnah of the prophet. The researcher has used the analytical descriptive method, and the analytical critical method. The sample of the study comprised of (150) kindergarten teachers in rural and urban areas in the Governorate of Dakahlleya, and has also included (210) parents of the children enrolled in the rural and urban area kindergartens in the Governorate of Dakahlleya, and has also included (70) children, male and female in rural and urban areas in the Governorate of Dakahlleya. The researcher used study tools, represented in (a questionnaire for all teachers and parents, and an observation card for children).

Findings have demonstrated:

By applying T-test between the two groups of the study sample (rural and urban children), the result came insignificant, meaning, there were no statistically significant differences between the two groups in fulfillment of the observation card dimensions, which means that the indicators significant of such dimensions do not realize in rural and urban area kindergartens.

Keywords :

Parental education for educating pre-school children; Parental education philosophy; Pre-school children; Quran kareem directives; Prophet sunnah directives.

Name **:** **Nagat Fathy Said Taha Ali**

Faculty **:** **Kindergarten Education**

Dept. **:** Phsychology

Degree **:** M.Sc.

Title of Thesis: Parents' Quality of Life and It's Relationship to Happiness of Their Deaf Children

Supervisors : Dr. Khaled Abd EI-Razek, Dr. Afaf Ahmed Ewais and Dr. Noha Diaa EI-Din Abd El-Hamid

Abstract :

The Current study aimed at identifying the quality of life for parents of deaf children and its relationship to the happiness feeling of their children. The researcher used the descriptive method of research. The Sample of the study consisted of two groups of children: the first Group consisted of 40 deaf children aged between 5-7 years with their parents (mothers- fathers) at AI Amal School for Deaf and hard of hearing at Lebanon Square at Giza Governorate, AI Amal School for Deaf and Hard of Hearing at Shubra at Cairo Governorate, and AI Amal School for Deaf and Hard of Hearing at Sayeda Zeinab at Cairo Governorate. Second group consisted of 50 normal children aged between 5-7 years and their parents (mother- father) at AI Madina AI Jam'ia, Dokki at Gaiza Governorate. **The results of the study** showed that There were statistically significant differences between mean scores of normal children's parents and parents of deaf children in quality of life feelings in favor of normal children's parents.There were statistically significant differences between mean scores of normal children's mothers and mothers of deaf children in quality of life feelings in favor of normal children's mothers. There were no statistically significant differences between mean scores of normal children's mothers and mothers of deaf children in quality of life feelings. There were no statistically significant differences between mean scores of deaf and normal children on the happiness feeling index. There Were statistically significant differences between score means of deaf children for high sensitive parents of life quality, and score means of deaf children for low sensitive parents of life quality on the scale of feeling happiness in each of (family dimension and total degree on the scale) in favor of deaf children for high sensitive parents of life quality.

Keywords:

Quality of life (QoL); Happiness; Deaf child.

Name **:** **Moustafa Hamdy Abd El-Mageed Mohamed**

Faculty **:** **Specific Education**

Dept. **:** Art Education

Degree **:** Ph.D.

Title of Thesis: Creativity Visual to Take the Result of Process Plastic and its Benefit in the Field of Metal Work

Supervisors : Dr. Ahmed Hafez Hassan and Dr. Abd El-Rahman Abd El-Hameed Abd El-Rahman

Abstract :

This research aims to reach a creative vision to address output forming processes through use of shapes and bodies and different sizes and diverse to those outcomes, and how to combine them creatively to address and building surfaces busy metal, and has dealt with a researcher at the first chapter in question contains an introduction research and his problem hypothesis and objectives then its importance and its limits, methodology and terminology and studies associated with it, as the researcher in the second quarter role output forming processes in the creative process and the structure of the artwork and the difference between the concept of creativity and innovation, and the definition of the concept of creativity and the creative process and levels of creativity and its components and stages and artistic creation and the characteristics of creative artists. Then the researcher in **Chapter III** properties of mineral ores and most important minerals that can be used output operations formed as well as the ways and connected and finishing surfaces and ended this chapter trends of modern art and contemporary hired output forming processes to take advantage of them and to find out the intellectual framework and philosophical these artistic trends in employment to output forming processes. The eating researcher in the fourth quarter some metal crafts contemporary hired output forming processes described and analysis, which numbered twentieth busy, In the fifth chapter, the researcher bid for applications self through three entrances experimental help students in the work of Craft Metal Craft Costume help creativity.

The fifth chapter included the importance of experimentation and research applications and the findings and recommendations and a summary of the research and references extract.

Keywords:

Metals; Art; Creativity; Process plastic; Handicrafts.

Name **:** **Amany Gaid Khalf Alla**

Faculty **:** **Specific Education**

Dept. **:** Music Education

Degree **:** M.Sc.

Title of Thesis: A Suggested Program for Singing Arabic Maquam Trough Singing Egyptian Melodies for the Student Teacher

Supervisors : Dr. Khaled Hassan Abas and Dr. Adel Mohammed Mostafa

Abstract :

A suggested program for singing Arabic maquam trough singing Egyptian melodies for the student teacher The message includes the following:
Chapter I contains two sections:
The first section: Includes the provision of research - Introduction to the research problem
Section second: Includes previous studies related to research.
Chapter II: Theoretical framework includes four topics
Section First: Includes profile lute music and rhythm in Arabic.
Section Second: Definitions of some templates lyrics
The third topic: The definition of solfege eastern and methods taught.
Section IV: Western definition and methods of solfege taught traditional and modern.
Chapter III: The study is applied.
Chapter IV: Analysis and interpretation of results and recommendations.

Keywords :

Solfage; Arabic maquam; Suggested program; Singing egyptian melodies.

Name **:** **Ghada Hussein Abd El-Aziz**

Faculty **:** **Specific Education**

Dept. **:** Art Education

Degree **:** M.Sc.

Title of Thesis : Designing an Electronic Program in Artistic Expression Based on Educational Games for Developing Communication Skills in Autistic Children

Supervisors : Dr. Soria Abd El-Razik Sidky and Dr. Ahmed Kamal Emam

Abstract :

The research studies a program based on the use of computers as a mean depends on the educational games to develop skills of communication and artistic expression of a child with autism in order to avoid some of the disturbances and necessary personnel injured by the child's autistic and suffered from during the use of the means and traditional media during the artistic expression which required the teacher interference directly with the child which affects the results of artistic expression negatively.

The search includes six chapters.

- **Chapter I:** Subject Search.
- **Chapter II:** Studies related to.
- **Chapter III:** Autism, what it is, his theo -ies, the factors causing it, and its distinctive features.
- **Chapter IV:** Multi-role of art in the development of the communication skills of autistic children.
- **Chapter V:** The practical fart the study: designing of an electronic program in artistic expression based on educational toys for the development of-communication skills of autistic children.
- **Chapter VI:** Analysis of results - interpretation and discussion - the recommendations and proposals for research.

Keywords:

Autism; Communication; Electronic program; Artistic expression; Educational games; Communication skills.

Name **:** **Heba Moustafa Abdullah Ahmed**

Institute **:** **Educational Studies**

Dept. **:** Curricula and Instruction

Degree **:** Ph.D.

Title of Thesis : The Effect of a Suggested Program for Teaching Novel Based on Language Decision Making Approach in Developing the First Year Secondary School Students' Critical Reading Skill, and its Achievement of the Standards Document for EFL Learning

Supervisors : Dr. Ali Ahmed Madkour and Dr. Assma Ghanem Geith

Abstract :

This study investigated the effect of a LDM based program for teaching novel in developing first year secondary experimental school studentsâ€™ critical reading skills. The sample of the study consisted of a group of sixty two first year secondary experimental school students selected from one of Cairo secondary schools, namely EL-Salam Secondary School for Girls. The sample of the study was assigned to an experimental and a control group (thirty one students in each group). The study also aimed to measure the effect of the proposed program in relation to content standards document for pre- university (EFL education). A critical reading checklist and a pre-post critical reading test were used as tools of the study. Based on the study results, the proposed LDM program proved to have a large effect in developing EFL critical reading skills as well as achieving the targeted content standards document for pre- university (EFL education). In addition, most of the students got satisfactory results.

Keywords:

Critical reading skills; Novel teaching; Standards; LDM approach.

Name **:** **Ahmed Mahmoud Fakhry Ghrib Ibrahim**

Institute **:** **Educational Studies**

Dept. **:** Educational Technology

Degree **:** Ph.D.

Title of Thesis : The effectiveness of a Hyper Media Systematic Thinking-Based Program in Developing Institute of Educational Studies Students' Programming Skills and Creative Thinking

Supervisors : Dr. Mostafa Abd El-Samea Mohmed and Dr. Amal Abd El-Fatah Ahmed Swedan

Abstract :

Current research aims to Design and produce a hyper media programme based on systematic thinking to Develop programming language skills and Creative Thinking of institute of educational studies students', The sample of the study consists two groups: Experiment group studied by hyper media programme based n systematic thinking, Control group studied by traditional learning, The main search results was: hyper media programme based on systematic thinking effect positively on Develop programming language skills in visual basic.net and Creative Thinking.

Keywords:

Hypermedia; Systematic thinking; Creative thinking; Programming skills.

Name **:** **Assem Abd El-Mageed Kamel Ahmad**

Institute **:** **Educational Studies**

Dept. **:** Educational Psychology

Degree **:** M.Sc.

Title of Thesis: The Effect of a Program Based on Curiosity in Developing some Cognitive Processes and Thinking Skills for Pupils of the Preparatory Stage

Supervisors : Dr. Mona Hasan El-Sayed Badawie and Dr. Mohamed Atef Oteafy

Abstract :

The current study aims at studying the effect of a program based on Curiosity in developing Attention, Visual perception and Critical thinking for pupils of the preparatory stage. Sample of the study consisted of (30) pupils of the second year of the prep. Stage as a Control group, and (30) pupils as an Experimental group. The current study reached differences between the pre-measuring and the post measuring for the experimental group in (Attention, Visual perception and Critical thinking) variables in favor of the post measuring, also The study reached differences in the post measuring between the Experimental and Control groups in favor of Experimental group in (Attention, Visual perception and Critical thinking) variables.

Keywords :

Curiosity; Attention; Visual perception; Critical thinking.

Name **:** **Naglaa Fathy Ahmed Abd El-Haleem**

Institute **:** **Educational Studies**

Dept. **:** Childhood Studies

Degree **:** M.Sc.

Title of Thesis: Obstacles Faced by Teachers in Schools of Education Property, and its Impact on their Attitudes Towards the Mentally Disabled Children

Supervisors : Dr. Samira El-Sayed Abd El-Aal, Dr. Hamdy Mohammed Shehata Arkoub and Dr. Samira Abu Zeid Abdou Nagdy

Abstract :

Teacher's key role in the process of teaching and learning, with him nations progress and develop, so any difficulties facing the teacher and the obstacle between him and the play of his duties lead to negative repercussions on the educational process, especially if This teacher deals with children with special needs, and especially the children who are mentally disabled because of the difficult task awaiting the teacher education schools property. Therefore, this study is to: 1- identify the main obstacles faced by teachers in schools of education and intellectual Dakahliya related to: (Educational guidance, School administration, Parents and Material resources). 2- disclose the relationship of these, obstacles with the attitudes of teachers of schools of education intellectual Dakahliya towards children with mental disabilities. 3- putting suggested proposal to overcome these obstacles, which may lead to better performance of the teachers in the schools of education property. 4- disclose the difference between teachers according to the academic qualification as regards the obstacles that they suffer from it. The results showed that there is no relationship between all the obstacles (related to Educational guidance _ school management communication with parents and material potential) and trends of intellectual education school teachers groups to children with mental disabilities. Which indicates that the specialized teacher in spite of the presence of all these obstacles he wants to work with mentally disabled children.

Keywords:

Obstacles; Mentally disabled children; Teachers in schools of education property.

Cairo University

Social Sciences Sector

- Law
- Commerce
- Mass Communication
- Economics And Political Sciences

Name **:** **Mahmoud Tawfik M. Mohamed**

Faculty **:** **Law**

Dept. **:** Public International Law and Islamic Law

Degree **:** Ph.D.

Title of Thesis: Human Protection III Natural Disasters III Light of Public International Law and Islamic Law

Supervisors : Dr. Ahmed Abou EI-Wafa and Dr. Abd El-Aziz Samak

Abstract :

In this study, I have dealt with the international legal rules and Islamic rules concern with the protection of human life in natural disasters. The study is divided into preliminary chapter and three main chapters. The preliminary chapter identifies the meaning of natural disasters in the international law and in the Islamic Law. The first chapter deals with human protection during these disasters named as the international law against natural disasters. Islamic law has concerned with the treatment of such disasters. The second threw lights on international cooperation in natural disasters and specially in providing international and the international human aids, their procedure and Islamic law position of them. At the end, I have identified in the third chapter to international and Islamic mechanism to achieve this target.

Keywords:

Natural disasters; Humanitarian aids; Humanitarian international law; Custom; Zakat.

Name **: Mohamed Wadea Abd El-Moneim Abd El-Halim**

Faculty **: Law**

Dept. **:** Criminal Sciences

Degree **:** Ph.D.

Title of Thesis: Crimes of General Tax Evasion on Sales, Issued by Law 11 of 1991, and its Amended

Supervisors : Dr. Medhat Abd El-Halim Ramadan

Abstract :

The subject of this study Addresses to examine the crimes of evasion of the law of the general sales tax, and its problematic is to discuss the criminality focus in this law, and discuss of evasion crimes and penalties thereon, and the criminal adversarial in prosecution of criminal tax, the importance of the study represent in obvious the problems faced by the criminal protection of the tax authority of the State on the one hand, and the- financial rights of individuals on the other.

The study was divided into an introductory chapter and two sections:
Introductory chapter: the general provisions of the sales tax .
Section I: substantive provisions of crimes of tax evasion on sales .
Section II: the procedural and punitive provisions for tax evasion crimes.

The study recommended the reorganization of certain provisions of the Sales Tax Act, and of that the partner is investigated in crime in solidarity with the person who evasion of tax in compliance with the performance of the tax and surtax. We recommend amending the text of Article (43, 45) of this law on the additional tax.

Keywords:

Crimes; Evasion; Law; General sales tax.

Name **:** **Shady Rashed Mohamed Abed**

Faculty **:** **Law**

Dept. **:** Public International Law

Degree **:** M.Sc.

Title of Thesis : The International Liability for Violation of Civilians' and Heads Rights During Armed Conflicts in International Law

Supervisors : Dr. Ahmed Abou El-Wafa Mohamed and Dr. Ahmed Hassan El-Rashidy

Abstract :

This study is connected with many practical facts which indicate the violation extent against civilians. The study deals with Gaza war in 2008/2009 raised by Israel against the civilians in Gaza and they declare also the crimes against them in violation of the International Humanitarian Law.

Keywords :

Public international law; International humanitarian law; International responsibility; Protection of civilians and civilian objects; Armed conflict.

Name **:** **Abla Hamed Ahmed Hegazy**

Faculty **:** **Commerce**

Dept. **:** Business Administration

Degree **:** Ph.D.

Title of Thesis : The Relationship of the Organizational Variables, Job Characteristics and Demographic Variables with Employee Empowerment and Its Effect on Organizational Performance

Supervisors : Dr. Adel Mohamed Abd El-Haleem Zayed and Dr. Amal Abd El-Rahman El-Sayed

Abstract :

This study aimed to determine the most determinations of Employee Empowerment that effected on the level of perceiving Employee Empowerment, and the result of this effect on Organizational Performance in the production and marketing vehicles organizations.

The results of this study are represented in:

1. Organizational variables have highly effect on the level of perceiving Employee Empowerment, then the demographic variables and the later job characteristics.
2. The Psychological Empowerment has positive effect on job satisfaction, and the most cognitions of Psychological Empowerment have effecting on job satisfaction are: meaning, choice, and impact. This study referred; there is no significant effect for Psychological Empowerment on customer satisfaction.

Keywords:

Organizational variables; Job characteristics; Demographic variables; Psychological empowerment; Organizational performance; Job satisfaction; Customer satisfaction.

Name **:** **Mai Ahmed Abd El-Zaher Zedan**

Faculty **:** **Commerce**

Dept. **:** Business

Degree **:** M.Sc.

Title of Thesis: The Impact of The Dividend Policy on the Stock Market Value

Supervisors : Dr. Khairy Ali El-Giziry

Abstract :

The study aims to investigate the relationship between dividends policy and market value. The study also describes the firm's financial performance and its link to the type of dividend policy. In order to achieve that goal, The researcher implements empirical study using a sample of 30 firms that form EGX30. The statistical analysis is done by using Mann Whitney, Chi-Square and stepwise regression. Statistical results revealed the following. **First**, there is statistical significant relationship between dividend policy (systematic and un systematic) and stock market value. **Second**, there is no significant relationship between the type of dividend policy (systematic and un systematic) and firms financial performance. **Third**, There is statistical and significant relationship between dividend policy form (cash dividend-retained earning-stock dividend) and stock market value. **Fourth**, there is strong positive relationship between cash dividend and stock market value. Fifth there is strong positive relationship between retained earnings and stock market value. **Finally**, there is inverse and week relationship between stock dividend and stock market value.

Keywords:

Systematic dividend policy; Unsystematic dividend policy; Stock market value.

Name **:** **Osman Fekry Abd El-Baky Noaman**

Faculty **:** **Mass Communication**

Dept. **:** Journalism

Degree **:** Ph.D.

Title of Thesis:News Editing Methods in the Private Egyptian Newspapers and their Impact on Readers Reception the Content of Press Text

Supervisors : Dr. Mahmoud Ibrahim Khalil

Abstract :

This study aimed to achieve two main objectives:
(1) Monitor and analyze the stylistic features of the professional performance of a number of private Egyptian newspapers towards the issue of bread in 2008, and (2) Disclosure on the impact of stimuli within the linguistic and technical news reporting on reader understanding and interpretation to the content of these news. Study concluded the stability function of the news texts through the transport of the real and actual events and facts, and express them as they are without the use of rhetorical images in the description and bring meaning to the recipient. The results of statistical tests for the presence of statistically significant differences in favor of narrative styles employed in the imaging of the mechanisms of metaphorical writing in material news reporting. The experimental study has concluded that the use of adjectives and metaphors in the news writing and reporting improves the process of understanding and interpretation of the respondents to this article. Also concluded that the presence of a particular artistic style has the ability and preference over other methods of other functional to a better understanding of the material news reporting and then be a matter of interpretation is unstable and cannot be verified proved, and so far. The study revealed that multiple mechanisms of expression represented by the secondary addresses, photographs and charts, can contribute to the high level of conviction readers with information and creates a state of satisfaction to the readers and reduce the feeling of disappointment to the omission of some of the text information. Numbers and ratios indicated that the use of narrative methods with nature in general and the high degree of employment characteristics, and mechanisms of metaphor within the text which would also create a state of satisfaction to the reader to the information within the text, and reduces feelings of frustration towards the omission of some of the text information.

Keywords:

Reception; Editing; Writing; Understanding; Interpretation.

Name **:** **Eman Mohamed Soliman Amin**

Faculty **:** **Mass Communication**

Dept. **:** Public Relations and Advertising

Degree **:** M.Sc.

Title of Thesis: Good Governance Indicators and Egyptian Media: An Empirical Study on a Sample of Governmental; Pnrtisan; and Independent Newspapers

Supervisors : Dr. Rasem Mohamed Abd El-Rahman EI-Gammal

Abstract :

Govemance in one of the controversial concept which emerged in late of 1980 in international organizations arena as a justification to the failure of the aids in achieving its goals in developed countries. The controversial of the concept is due to its multiple dimensions, and different societal sectors which play vital role in addition to the government in managing the state affairs, one of the main players in media which play an important role in connecting different sectors in society by sharing and providing information to each sector and to public. So, this study aims to discover how Egyptian newspaper tackles good governance indicators and concept, and the media role. Using content analysis methodology to a sample of newspapers taking into account the representation of different political orientation, during a period from November 2010 to February 2011, in which three different issues emerged during this period parliament election 2010, the explosion of al kedassen church in Alexandria, and the 25 Jan. revolution. The research problem is to identify and analysis indicators of good governance in Egyptian newspaper according to their different political orientation, towards some of the major issues in Egypt, and to detect the variance after 25 Jan. Revolution. The study depends mainly in its analysis to good governance indicators on the worldwide governance indicators due to its wide geographical coverage, and it's inclusive to various fields related to the indicators. The main results were: all newspapers addressee good governance indicators, but they differ according to the political orientation of the newspapers and the issues. As for the media role the results show that newspapers work as information provider, and watchdog, and they present their vision for reform.

Keywords:

Good govemance; Indicators; Media role; Watch dog role.

Name **:** **Rasha Mohamed Bahgat El-Kholy**

Faculty **:** **Economics and Political Science**

Dept. **:** Statistics

Degree **:** Ph.D.

Title of Thesis : The Effect of a Suggested Program for Teaching Novel Based on Language Decision Making Approach in Developing the First Year Secondary School Students' Critical Reading Skill, and its Achievement of the Standards Document for EFL Learning

Supervisors : Dr. Michel Robert Bonneu, Dr. Sanaa Abd El-Aziz Ismail and Dr. Ahmed Mahmoud Gad

Abstract :

The study of longitudinal data plays a significant role in medicine, epidemiology and social sciences. Typically, the interest is in the dependence of the outcome variable on the covariates. The generalized linear models (GLMs) were proposed to unify the regression approach for a wide variety of discrete and continuous longitudinal data. The responses (outcomes) in longitudinal data are usually correlated since repeated observations are taken from the same subject. Ignoring this type of correlation may affect the validity of the likelihood inference. Hence, an extension of the GLMs, that account for such correlation, is needed. This can be done by inclusion of random effects in the linear predictor; that is the generalized linear mixed models (GLMMs) (also called the random effects models). The objective of this thesis is to calculate the maximum likelihood estimates (MLEs) for the regression parameters of the logit model, when the traditional assumption of normal random effects is relaxed. In this case, a more convenient skewed distribution, such as the lognormal distribution, is used instead. However, adding non-normal random effects to the GLMM complicates the likelihood estimation considerably because the likelihood function can no longer be expressed in a closed form. So, the direct numerical evaluation techniques (such as Newton-Raphson) become analytically and computationally tedious. To overcome such problems, the present study proposes and develops a Monte Carlo EM (MCEM) algorithm, to obtain the maximum likelihood estimates for a logistic regression model when the lognormal distribution is assumed as the random effects density.

Keywords:

Random effects models; Generalized linear mixed models (GLMM); Generalized linear models (GLM); MCEM algorithm.

Name **:** **Nesma Ali Mahmoud Saleh**

Faculty **:** **Economics and Political Science**

Dept. **:** Statistics

Degree **:** M.Sc.

Title of Thesis: The Performance of the Adaptive Exponentially Weighted Moving Average Control Chart with Estimated Parameters

Supervisors : Dr. Mahmoud El-Said Mahmoud

Abstract :

The Adaptive Exponentially Weighted Moving Average (AEWMA) control chart has the advantage of detecting in balance mixed range of mean shifts. Its performance has been studied under the assumption that the process parameters are known. Under this assumption, previous studies have shown that AEWMA provides superior statistical performance when compared to other different types of control charts. In practice, however, the process parameters are usually unknown and are required to be estimated. Using a Markov chain approach, it is shown that the performance of the AEWMA control chart is affected when parameters are estimated compared with the known parameters case. The effect of different standard deviation estimators on the chart performance is also investigated. Finally, a performance comparison is conducted between the EWMA chart and the AEWMA chart when the process parameters are unknown. We recommend the use of the AEWMA chart over the ordinary Exponentially Weighted Moving Average (EWMA) chart especially when a small number of Phase I samples is available to estimate the unknown parameters.

Keywords:

AEWMA; Estimation effect; Markov chain; Average run length; Statistical process control.

Cairo University

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