

The Best Thesis
Awards
Academic Year
2006- 2007
Cairo University

March 2008



**Best Thesis Awards
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The strategy of the university aims to enhance its capabilities and potentialities through developing its human and financial resources, as well as to improve the academic abilities of its staff members and their assistants, in order to prepare them for the age of science and technological revolution. In this respect, the university has adopted unconventional methods to develop the system of academic research in order to meet the needs of society and research and to encourage its scholars and researchers. Among these means of encouragement are:

- Allocating an award for the best thesis (MSc – PhD) in each faculty or institute.
- Allocating an award for academic publishing in international periodicals, according to certain criteria.
- Financing academic proposals in different academic specializations within the framework of international research conferences held annually by the university.



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This publication comprises the best thesis (MSc – PhD) for the academic year 2006-2007. The university will continue to periodically support its distinguished researchers, on both financial and moral levels.

Prof. Hossam Kamel

Prof. Ali Abd El-Rahman

**Vice – President for Graduate
Studies and Research**

Cairo University

President

Cairo University



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Basic Sciences Sector

- > Science**
- > Agriculture**
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Name: Ismail Abd El-Shafy Abd El-Hamid

Faculty: Science

Dept.: Chemistry



Degree: PhD

Title of Thesis: Studies with 2-arylhydrazononitriles: a New Convenient Synthesis of 2, 4-Disubstituted- 1,2,3-Triazole-5-Amines

Abstract:

In this thesis a variety of novel approaches to polyfunctionally substituted pyridazines could be achieved through utility of simple readily obtainable intermediate.

In the first part a novel Michael addition reaction of pyruvaldehyde-1-arylhydrazones with α,β -unsaturated nitriles, took place and led to 1,4-dihydropyridazine-6-amine derivatives. The structure of the reaction products could be established with certainty through inspection of spectral data as well as X-ray.

In the second part a new simple approach to prepare 2ry amine diazastylene could be invented thus replacing previously utilized expensive and carcinogenic dimethylformamide dimethylacetal (DMFDMA). The enamines could be converted into a variety of azolyl pyridazines as well as condensed pyridazines.

In the appendix (third part) a novel route to 2-substituted-1,2,3-triazole-5-amines could be achieved via reacting 2-arylhydrazononitriles with hydroxyl amine. Again the structure could be confirmed through X-ray crystal structure determination.

Key words:

1,4-dihydropyridazine-6-amine, 3,11-dihydropyridazino[1,6-a]quinazoline, X-ray crystal structure, 4-methyl-6-oxo-pyridazine-5-carbonitriles, 2-substituted-1,2,3-triazole-5-amines.



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Name: Shimaa Mohamed Mahmoud

Faculty: Science

Dept.: Chemistry

Degree: MSc

Title of Thesis: Electrochemical Synthesis and Characterization of Composites of Conducting Polymers and Nano-structured Metals



Abstract:

Conducting homo-, bilayer- and co- polymers were electrochemically deposited on platinum and glassy carbon surfaces. Submicro-/nano- co-catalysts of palladium and platinum were electrochemically deposited over the conducting polymer surfaces. Electrochemical investigation of the resulting films was achieved using cyclic voltammetry, chronocoulometry, and electrochemical impedance spectroscopy. Diffusion coefficients were determined for the different films and the effect of changing the synthesis and test electrolytes with the solvent were also compared. Other factor studied was the film thickness and the results showed that a memory effect exists from the synthesis electrolyte that affects the diffusion coefficient values. Film modification with the Pt/Pd co-catalyst can be used successfully in the catalytic oxidation of methanol in direct methanol fuel cells. FTIR measurements proved the incorporation of both individual monomers in the copolymer films. On the other hand, surface morphology revealed by SEM showed distinct difference between homo-polymeric and co-polymeric structures.

Key words:

Conducting polymers, Nano-Structured Catalyst, Methanol Oxidation, Copolymers, Bilayerd Polymers, Diffusion Coefficients, SEM, FTIR, TGA, DMFC.



**Best Thesis Awards
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Name: Sayed Ahmed Safina

Faculty: Agriculture

Dept.: Agronomy

Degree: PhD

Title of Thesis: Effect of Biofertilization and Mineral Nitrogen Applications on Solid and Intercropping Maize with Soybean



Abstract:

Four field trials were conducted at the Agricultural Experiment and Research Station, Faculty of Agriculture, Cairo University, Giza, at 2004-2005 and 2005-2006 summer seasons.

Part I:

This experiment was carried out to study the effect of cropping systems (intercropping, solid 1 and solid 2) and diazotroph inoculation alone or together with application N levels to maize plants by 0, 60, 90 and 120 kg N/faddan on yield and yield components of maize and soybean. Maize variety (SC 122) and soybean variety (Giza 111) were used in this study. The most important results could be summarized as follow: cropping systems (CS) significantly affected on all studied characters. Intercropping system increased leaf area index compared with solid plantings. Solid1 planting resulted in higher maize total dry weight/plant, biological yield/plant, ears/plant, seed index, grain weight/ear, grain yield/plant and per faddan and harvest index than intercropping and solid2. Increasing nitrogen application till 120 kg N/fad increased leaf area index, total dry weight/plant, Ear height, plant height, biological yield/ plant, ears /plant, grain yield /plant and faddan, weight of grains/ear and seed index. Inoculation (Ino.) of maize with diazotrophs increased significantly leaf area index, total dry weight/plant, ear height, plant height, biological yield/plant, ears/plant, grain weight/ear, grain yield/plant and grain yield/faddan compared with uninoculation. Significant interactions between CS x N, CS x Ino., N x Ino. and CS x N x Ino. were recorded on some studied characters. The highest N_2 -ase activity was estimated with inoculated soybean under solid1 planting. LER increased by 120 kg N/faddan applying with inoculation. The results indicated that the microbial formulation "Biogramina" of associative diazotrophs successfully replaced 30 kg N/fad for maize plants.



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Part II:

Six soybean varieties were evaluated under intercropping and two solid systems in addition to explore their efficiency to nitrogen fixation and tolerance to intercropping and effect of diazotroph inoculation with application nitrogen to maize plants by 90 kg N/faddan on yield and yield components of maize and soybean. Plant genotype deemed among the criteria that determine the proper plant-microbe interaction. This was very obvious with the different responses to diazotroph inoculation of the various soybean varieties (V). Higher values for maize grain yield/plant was obtained from maize intercropped with Giza 82 and Giza 111. A significant interaction between cropping systemsx soybean varieties was observed on some studied characters. The interaction between cropping systems and soybean varieties was statistically significant for some maize and soybean characters.

Key words:

Maize, Soybean, Solid planting, Intercropping, Inoculation, Diazotrophs, N levels and LER.



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Name: Ahmed Yehia Mohamed Ahmed Gad

Faculty: Agriculture

Dept.: Animal Production



Degree: MSc

Title of Thesis: Study of the Effect of Gender, Local Anesthesia and Antioxidant on Myocardial Performance of Rats after Burn Injury

Abstract:

The efficacy of the sperm to uptake exogenous DNA under different dilution and lipofectin treatments and the effects of DNA or DNA-lipofectin mixture incubation with sperm on their characteristics were examined in this study. Semen samples were individually collected from five males of a local broiler male line following the dorsal-abdominal massage. Two trials were carried out to achieve the aims of the study.

Trial 1, was proposed to study the effects of semen dilution (4 μ l diluent/1 μ l semen), heat incubation (exposure of semen to 37°C for 30 minutes using water path) and the addition of lipofectin on sperm characteristics. In this concern, individual semen samples were collected, then intermingled together to form pooled semen. The pooled semen sample was then divided, as equally as possible, into nine parts for nine different treatments. Part 1, was kept un-treated (control). Part 2, was heat incubated. Part 3, was diluted using saline solution (0.9% NaCl). Part 4, was diluted with saline solution, then heat incubated. Part 5, was diluted with Beltsville Poultry Semen Extender (BPSE). Part 6, was diluted with BPSE, then heat incubated. Parts 7, to 9, were all diluted with BPSE, mixed with lipofectin reagent which was added by 5, 10 and 20 μ g/100 μ l diluted semen for parts 7, 8, and 9 respectively, then all were heat incubated.

Trial 2, was designed based on the results obtained in trial 1, where the individual semen samples were collected and intermingled together to form a pooled semen sample. The pooled semen was then divided, as equally as possible, into three parts.



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Part 2, was then mixed with the pUC18 plasmid (2.5 µg plasmid/100 µl diluted semen), then heat incubated. Part 3, was incubated with a mixture of the pUC18 plasmid and lipofectin (2.5 µg plasmid + 5 µg lipofectin/100 µl diluted semen), then heat incubated. After heat incubation in treatments 2, and 3, sperm were washed by adding 500 µl of BPSE to each treatment and mixed thoroughly then centrifuged at 4000 rpm for 5 minutes. The washing was repeated. The un-treated sperm (control) was also subjected to washing procedures and used as a negative control. The DNA was then extracted from the washed sperm of all treatments. The polymerase chain reaction (PCR) was applied to the extracted DNA of all treatment, to recognize the existence of the plasmid DNA in the sperm, and the plasmid DNA was used as a positive control. Two specific primers, forward and reverse, were used to prime a specific DNA substrate of 420 bp long on the rep (pMB1) of the plasmid. In both trials, sperm characteristics including sperm concentration, motility and viability were assessed for all treatments.

The results of trial 1, showed that the un-treated semen (control) contained sperm with 90% motility and the percentages of live, dead and abnormal sperm were 94.8, 1.6, and 3.4%, respectively. The motility was 79% in the heat-incubated semen, and was significantly less than that estimated for the control treatment. However, no significant differences were found in the percentages of live, dead and abnormal sperm between both treatments. The dilution of semen by saline solution did not significantly influence the individual motility compared to the control. It however significantly reduced the percentage of live sperm, and the percentage of dead sperm was subsequently increased. The motility of sperm in the saline-diluted, heat incubated semen was decreased and this was obviously attributed to the heat incubation, since it is not significantly different from that of the heat incubated semen (78% vs 79%). Also, the significant reduction in the percentage of live sperm (90.4%) for the saline-diluted, heat incubated semen compared to the control (94.8%), is rather attributed to the saline dilution effect. The increase in the percentage of dead sperm (4%) is also attributed to the saline dilution effect, not to the heat incubation effect. The percentage of abnormal sperm was neither influenced by the incubation, the saline dilution nor both together. When Beltsville poultry semen extender (BPSE) was used as a diluent, it significantly reduced the individual motility to 79% compared to 90% for the un-treated semen (control). The reduction was significantly comparable to that resulted when saline solution was used as a diluent. The dilution of semen with BPSE did not significantly influence the percentages of live, dead and abnormal sperm. Also.



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Name: Khaled Abdel-Aziz Abdel-Moeen

Faculty: Veterinary Medicine

Dept.: Zoonosis

Degree: PhD



Title of Thesis: Impact of some *Helicobacter* and *Campylobacter* species on man and animals

Abstract:

Helicobacter and *Campylobacter* are two bacterial genera comprise a number of important gastrointestinal pathogens that have emerged in recent years to be the causative agents of serious animal and human diseases. And so, the overall goals of this study to scope on the epidemiology of thermophilic *Campylobacter* species as well as investigating the zoonotic potential of *Helicobacter pylori*. For this purpose animal and human samples were collected, animal samples included (feces, milk, abomasa and blood) from cattle and sheep, whereas human samples included (feces, saliva and blood) from persons in contacts with cattle and sheep. The results of the study revealed that the incidence of thermophilic *Campylobacter* species in cattle and sheep feces was 18.8% and 13.2% respectively while that in human was 9.2%. However, most of isolates were identified as *Campylobacter jejuni*. Furthermore, *Campylobacter jejuni* was isolated from 6.4% of the examined cows' milk samples; all isolates from mastitic animals (mainly sub clinically). On the other hand, *Helicobacter pylori* was isolated from the abomasal samples of 1.5% of the examined sheep and the organism was detected in the feces of 80% of sheep examined by ELISA while the sero prevalence of antibodies against *Helicobacter pylori* in sheep blood was 58%. Moreover, 86% of persons in contact with cattle and sheep were positive for *H. pylori* IgG antibodies while all persons in regular contact with sheep were sero positive by using ELISA.

Conclusion, *Campylobacter jejuni* should be considered as an important cause of enteritis in cattle, sheep and man specially in young ages. Also, this organism played



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an important role as a causative agent of sub clinical mastitis in dairy cattle which lead to economic losses. It is worthy to mention that sheep were considered an important reservoir for *Helicobacter pylori* and a potent disseminator of the organism in the environment through shedding of *Helicobacter pylori* in feces and so, contaminating water and soil regarding all persons in regular contact with sheep at risk from contacting the infection and thus, *Helicobacter pylori* should be considered as a zoonosis.

Key words:

Enteritis, *Campylobacter Jejuni* , *Helicobacter Pylori* and Zoonosis



**Best Thesis Awards
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Name: Ayman Hany Mahmoud Metwally El-Deeb

Faculty: Veterinary Medicine

Dept.: Virology

Degree: MSc



Title of Thesis: Construction of Recombinant Baculovirus Expressing
G_N Protein of Rift Valley Fever Virus

Abstract:

G_N protein of Rift Valley Fever Virus (ZH-501 strain) was expressed in *Spodoptera frugiperda* (Sf-9) insect cell line using recombinant baculovirus carrying G_N gene of RVFV. RVFV was characterized using RT-PCR and sequencing of the internal part of the M genomic segment of the virus which revealed that the virus was related genetically to the Egyptian lineage. The full length G_N gene was amplified using RT-PCR, cloned into baculovirus transfer vector pBlueBac4.5/V5-His-TOPO® and the recombinant plasmid was checked for correct orientation by PCR assay. The cloned G_N gene was introduced into the genome of *Autographa californica nuclear polyhydrosis virus* (AcMNPV) under control of the polyhedron promoter, through a process of homologous recombination between the recombinant transfer vector identified for correct orientation and a linearized replication-defective baculovirus DNA (Bac-N-Blue™). Recombinant baculovirus was purified using plaque assay and checked for recombination and purity using PCR assay. The pure recombinant baculovirus carrying G_N gene of RVFV was propagated in Sf-9 cells for production of high titer (P2) virus stock which was titrated using plaque assay and used in expression of G_N protein. The expressed protein was characterized by immunofluorescence, solid phase ELISA, SDS-PAGE and Western blot assays which revealed that the protein was expressed at a high level especially after 96 hours of infection of the insect cells with the recombinant baculovirus. The expressed protein will be used in future studies in the field of diagnosis in development of new diagnostic kits and in the development of subunit vaccine to RVFV.

Key words:

RVFV, Rift Valley fever, Baculovirus, Genetic Engineered Vaccines, G_N.



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Name: Naglaa Abd-El Moneim Morad

Institute: Statistical Studies and Research

Dept.: Applied Statistics and Econometrics



Degree: PhD

Title of Thesis: Isotonic Statistical Inference in Linear Models

Abstract :

The main purpose of this dissertation is to develop tests for monotonicity of the normal means problem. We have studied different procedures for testing equality of fixed effects against the alternative that there are order restriction types, in one way model and in two way mixed model. Two cases have been considered, with known and unknown variances. Tests considered are the likelihood ratio test, the score test, and the general score test are used. Two different types of order restriction are also used, the simple and the umbrella order.

Key words:

Isotonic Inference, Order Restriction, Simple Order, Umbrella Order, Likelihood Ratio Test, The Score Test, The General Score Test.



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Name: Maha Mostafa Kamal

Institute: Statistical Studies and Research

Dept.: Biostatistics and Demography



Degree: MSc

Title of Thesis: Women's Empowerment and Child's Health & Education in Egypt

Abstract :

The study aimed to identify relationships between women's empowerment and child's health & education. It concluded that woman's age and education, husband's education, woman's work, place of residence, parents literacy and blood relationship are the main determinants of women's empowerment. There was a significant relationship between full vaccination, the prevalence of diarrhea and decision-making and mobility. Another relationship existed between school's attendance and decision-making, mobility, child's sex, place of residence, woman's & husband's education, woman's work and parents literacy.

Key words:

Women's Empowerment, Child's Health, Child's Education, Women's Empowerment Index.

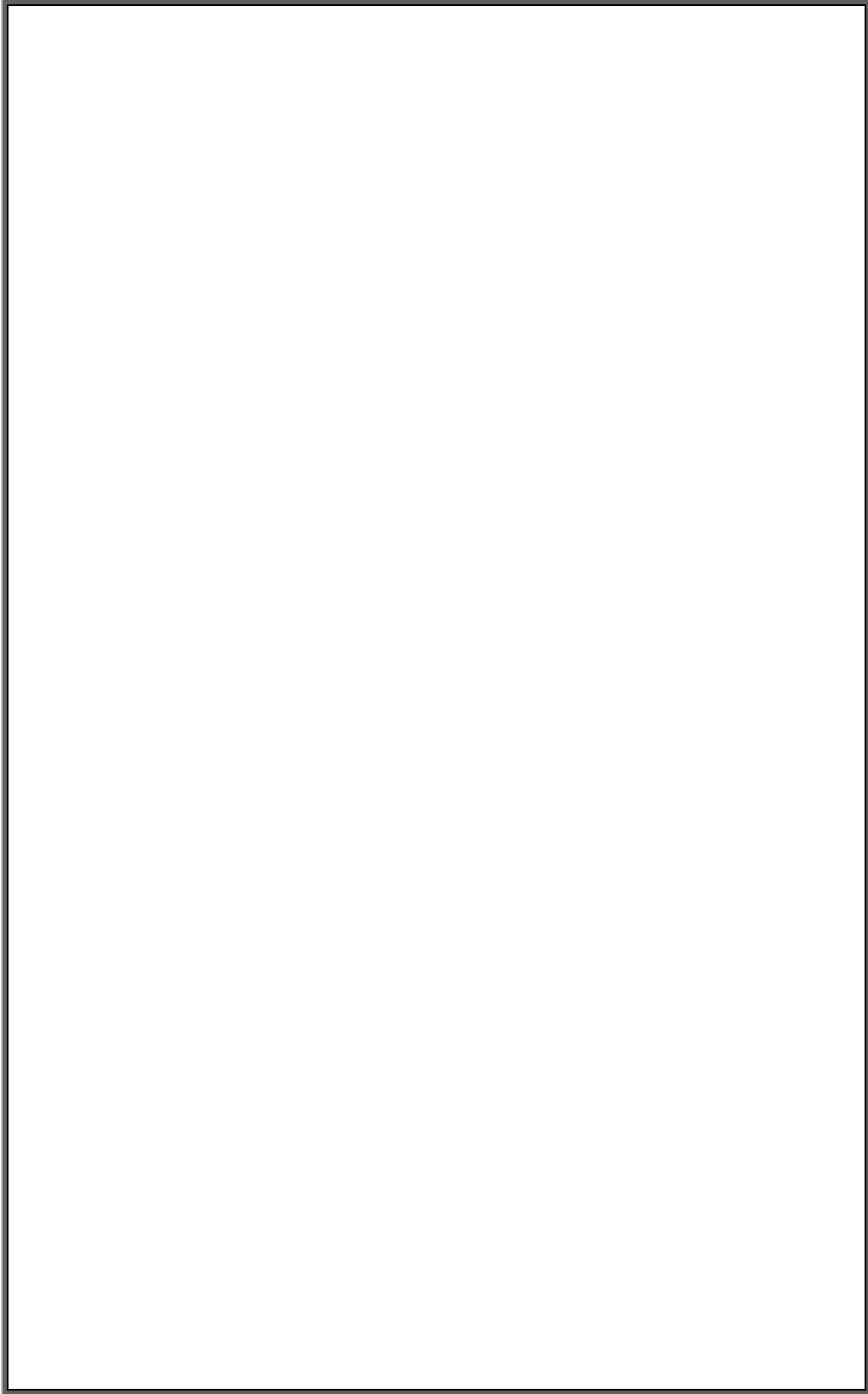


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Medical Sciences Sector

- Medicine**
- Oral and Dental Medicine**
- Pharmacy**
- Nursing**
- National Cancer Institute**
- Physiotherapy**





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Name: Mona Mohamed Fathi Taher El-Lffat

Faculty: Medicine

Dept.: Clinical Pathology

Degree: PhD



Title of Thesis: Evaluation of Neuron Specific Enolase (NSE), Tissue Polypeptide Specific Antigen (TPS) and Scatter Factor (SF) as Diagnostic and Prognostic Markers of Cancer Prostate

Abstract:

Background: Many strategies have been proposed to enhance the ability of PSA in differentiation of Prostate Cancer from BPH. The present study aimed at evaluating the measurement of serum levels of NSE, TPS and SF/HGF in combination with PSA and f/T PSA in Prostate Cancer patients to assess their diagnostic and prognostic value
Methods: The study was conducted on 72 patients complaining of obstructive symptoms as frequency and urgency. 26 diagnosed as BPH, 21 diagnosed as localized PCa and 25 diagnosed as metastatic PCa. The latter group was divided according to Gleason score into moderately differentiated (n=13) and poorly differentiated adenocarcinoma (n=12). All patients were subjected to TRUS, core needle biopsy and assay of serum tPSA, fPSA measured by chemiluminescent immunometric assay, NSE using electrochemiluminescence immunometric assay, TPS (IRMA) and HGF (ELISA). Correlation with progression free survival was done for metastatic patients

Results: Median values of tPSA was significantly higher in metastatic PCa (group III) compared to localized PCa (group II) and BPH patients (group I) (68, 7.0, 2.0 ng/ml respectively $P < 0.001$), f/T PSA was significantly lower in PCa patients (group II, group III) compared to BPH patients (0.13, 0.14, 0.2 respectively, $P = 0.004$), TPS was significantly higher in metastatic PCa (140 U/L) compared to group I and group II (77, 65 U/L, respectively $P = 0.004$) and HGF was significantly higher in metastatic PCa patients compared to group I and group II (2270, 2132, 1789 pg/ml, respectively,



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p=0.047). On constructing (ROC) curve using tPSA, F/T, NSE, TPS and HGF, it yielded AUCs of 0.739, 0.707, 0.429, 0.634 and 0.635 respectively.

Simultaneous assay of PSA and HGF yielded a sensitivity of 96% in discriminating between BPH from malignant prostate compared to 91% for HGF and 93% for PSA alone. The metastatic PCa group showed a lower progression free survival associated with high NSE levels.

Conclusions: The f/tPSA is useful in discriminating between BPH and PCa and thus allowing early intervention and treatment. A cutoff value of 0.24 for f/tPSA is recommended as it detects 87% of cancer cases and at the same time avoids 39 % of unnecessary prostate biopsy. Moreover, combining PSA and HGF was more accurate in discriminating between BPH and malignant prostate. High NSE levels are of prognostic significance in patients with metastatic PCa treated with hormonal therapy

Key words:

Prostate Carcinoma, f/t PSA, NSE, TPS, SF/HGF.



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Name: Neveen Mahmoud Moustfa Shaarawy

Faculty: Medicine

Dept.: Clinical Pathology

Degree: MSc



Title of Thesis: Study of the Effect of Gender, Local Anesthesia and Antioxidant on Myocardial Performance of Rats After Burn Injury

Abstract:

Burn has effect on myocardium performance; the cytokine cause cardiac dysfunction due to their effect on protein synthesis and Ca^{2+} level in the heart. Estrogen has protective effect on the heart. Also lidocaine produce protective effect due to its anti-inflammatory action. Antioxidant found to have important role in the inhibition of cytokines secretion from the heart.

Key words:

Cytokines, Lidocaine, Antioxidant.



**Best Thesis Awards
Cairo University**



Name: Gihan Hafiz Waly Ahmed

Faculty: Oral and Dental Medicine

Dept.: Biomaterials

Degree: PhD



Title of Thesis: Preparation of Biodegradable Scaffold for Dental and Medical Tissue Engineering

Abstract :

Tissue engineering is a biomedical field concerned with providing biological substitutes that could replace lost or malfunctioning tissues and organs. The idea of tissue engineering is based on isolating cells from an individual and expanding them in culture. The cells are then seeded on a biocompatible, porous and biodegradable carrier, called “scaffold”, where they start to proliferate and secrete their extracellular matrix. When the scaffold becomes adequately colonized by the cells, the scaffold-cell construct is implanted into the patient’s body where the scaffold gradually biodegrades until it becomes totally substituted by the newly formed tissue. Natural polymers were widely used as biocompatible scaffold materials because their chemical structure, in some respects, closely mimics that of the extracellular matrix of biological tissues. Even though a wide variety of biopolymers can be used for these applications, no single polymer has been yet found to fulfill all requirements needed in a scaffold material. In an attempt to combine the advantages of two natural polymers, a hybrid scaffold, containing two different polymers, was prepared and evaluated as a candidate for tissue engineering applications. The two combined polymers are chitosan and one cellulose derivative (hydroxyethyl cellulose) (HEC). Four groups of hybrid chitosan/HEC scaffolds were prepared with different HEC concentrations. The surface and bulk porosity of the scaffolds was examined using scanning electron microscope (SEM) and mercury intrusion porosimetry (MIP). The scaffolds were mechanically tested to evaluate their compressive strength. The biodegradation rate in lysozyme-containing saline was also measured over a six week period. The SEM photographs revealed that all hybrid scaffold groups exhibited an interconnected highly porous



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structure. The mercury intrusion porosimetry (MIP) results showed that all scaffolds had percent porosity in excess of 75% and that the percent porosity decreased by increasing the HEC concentration. The incremental intrusion versus diameter curves revealed that most of the scaffolds porosity occurred in the macro-scale. The compressive strength of the scaffold increased with the increase in the HEC concentration while the biodegradation rate decreased with increasing HEC content in the hybrid.

In order to evaluate the cytocompatibility of the chitosan-based scaffolds, mesenchymal stem cells were isolated from the bone marrow of ten donor rabbits. The cells were statically seeded on the scaffolds and their attachment to the scaffolds' surfaces was evaluated by phase contrast and scanning electron microscopes. The results revealed that after three days of seeding, the scaffolds became populated with cells that appeared either as isolated cells or in the form of small clusters. After eight days of seeding, the scaffolds were covered with larger clusters of cells and the cells abundantly colonized the scaffolds pores and were even observed dividing on the scaffolds' surfaces. The increase in cell density from the third to the eighth day serves as a clear indication that the investigated scaffolds not only promote cell attachment but also support cell proliferation. Thus, the investigated scaffolds can be considered as promising candidates for tissue engineering applications.

Key words:

Tissue Engineering, Scaffold, Chitosan, Cellulose, Cytocompatibility.



**Best Thesis Awards
Cairo University**



Name: Mostafa Talaat El-Gangiehe

Faculty: Oral and Dental Medicine

Dept.: Department of Demonstrator in Oral and
Maxillofacial Surgery

Degree: MSc



Title of Thesis: Evaluation of the Quality of the Formed Bone After
Horizontal Alveolar Distraction

Abstract :

Purpose: This study aimed at evaluating horizontal alveolar distraction as one of the modalities for lateral ridge augmentation.

Patients and Methods: Six patients underwent ridge augmentation procedure using horizontal alveolar distraction utilizing a specially designed simple distractor. The technique involved creation of a labial transfer segment to which the distractor was fixed using titanium osteosynthesis microscrews. A piece of titanium mesh was fixed on the palatal bone opposing the distractor screw to act as a base plate. Distraction was performed at a rate of 0.5 mm/day followed by a consolidation period of 12 weeks. The formed bone was histologically and radio graphically evaluated and implants were inserted in the newly formed regenerate.

Results and Conclusions: bone was formed in the distraction gap which was well organized lamellar and woven bone. Therefore Horizontal alveolar distraction osteogenesis proved to be an available option for augmenting the width of the alveolar ridge.



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Name: Mohammad Abdallah El-sayed

Faculty: Pharmacy

Dept.: Analytical Chemistry

Degree: PhD



Title of Thesis: Contribution for The Analysis of Certain Drugs Which Treat Cerebrovascular Insufficiency

Abstract:

§ Part I: General introduction.

§ Part II: New spectrophotometric methods for the determination of binary mixtures of nicergoline and cinnarizine and stability indicating for vincamine. This part is subdivided into two sections:

Section (A): Determination of vincamine in presence of its acid degradation product by the ratio subtraction method.

Section (B): Determination of nicergoline and cinnarizine by the ratio subtraction and isosbestic point methods.

§ Part III: Simultaneous determination of nicergoline and cinnarizine This part is subdivided into four sections:

Section (A): Simultaneous determination of nicergoline and cinnarizine by the derivative spectrophotometry

Section (B): Simultaneous determination of nicergoline and cinnarizine by densitometric methods

Section (C): Simultaneous determination of nicergoline and cinnarizine by high-performance liquid chromatography



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Section (D): Simultaneous determination of nicergoline and cinnarizine by chemometric methods

§Part IV: Stability indicating methods for the determination of meclophenoxate hydrochloride. This part is subdivided into three sections: -

Section (A): High-performance liquid chromatographic determination of meclophenoxate hydrochloride in presence of its alkaline degradation product

Section (B): Kinetic study on degradation of meclophenoxate hydrochloride.

Section (C): Determination of meclophenoxate hydrochloride in presence of its acid degradation product using ion selective electrodes

§Part V: Stability indicating methods for determination of vinpocetine in presence of its degradation product This part is subdivided into four sections:-

Section (A): Determination of vincpocetine in presence of its acid degradation product by the derivative ratio spectrophotometry

Section (B): Densitometric determination of vinpocetine in presence of its acid degradation product

Section (C): High-performance liquid chromatographic determination of vinpocetine in presence of its acid degradation product

Section (D): Chemometric determination of vinpocetine in presence of its acid degradation product

§Part VI: Stability indicating methods for the determination of pyritinol dihydrochloride. This part is subdivided into three sections:

Section (A): Determination of pyritinol dihydrochloride in presence of its degradation product by the derivative ratio spectrophotometry.

Section (B): High-performance liquid chromatographic determination of pyritinol dihydrochloride in presence of its oxidative degradation product.

Section (C): Determination of pyritinol dihydrochloride in presence of its degradation product using ion selective electrodes.

Key words:

Derivative Spectrophotometry, High Performance Liquid Chromatography.



**Best Thesis Awards
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Name: Shahira Mohammed Ezzat Mohammed El-Komy

Faculty: Pharmacy

Dept.: Pharmacognosy

Degree: PhD



Title of Thesis: Phytochemical and Biological Studies of Certain Species Belonging to the Genera Dimorphotheca, Gazania and Helichrysum (Family Compositae) Growing in Egypt.

Abstract:

We have been studying the work of three chemical plants, which we have to separate the vehicles for the first time many of these plants along with a composite Helichryzone new separate for the first time in nature. As measured biological effects of this plant has been affected on liver diseases.

Key words:

Gazania, Dimorphotheca, Helichrysum, Composita.



**Best Thesis Awards
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Name: Hani Hunter Munir Bibawi

Faculty: Pharmacy

Dept.: Analytical Chemistry

Degree: MSc



Title of Thesis: Analysis of Pesticides

Abstract :

This thesis consists of five parts:

§ Part I: General introduction.

This part involves general information about pesticides, their different classes and toxicity.

§ Part II: Literature Review

This part contains some information about the studied pesticides, their chemical structures, properties and a review for different methods used for determination of the insecticide methomyl and the fungicides tetraconazole and diniconazole.

§ Part III: Analysis of Methomyl

This part is divided into three sections:

Section (A): Densitometric determination of methomyl residues in tomato and cucumber fruits - kinetic study

This method depends on extraction of methomyl from tomato and cucumber fruits with methanol and separation of the insecticide from plant co-extractives using TLC technique depending on different R_f values using mobile phase (benzene: methanol: glacial acetic acid 8: 2: 0.1 V/V/V) R_f of methomyl = 0.6, R_f of co-extractive = 0.06. Detection of spots was made at wavelength = 233 nm. The method determined methomyl in the concentration range of 1-7 $\mu\text{g/spot}$ with mean percentage recovery of 99.91 ± 0.485 .



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This method was used for quantitative determination of methomyl residues in tomato and cucumber fruits after separation on thin layer chromatographic plate followed by densitometric measurement of spots at the chosen wavelength. Quantification of methomyl residues was made by enrichment technique (addition of known amount of standard methomyl to the extract). A residue study was performed by spraying tomato and cucumber crops by a methomyl formulation (Lannate 90 % SP), collecting samples at different intervals and analyzing the samples for methomyl residues. The study showed decline (decrease) in methomyl residues with time. The decline rate was found to follow first order kinetics with $t_{1/2} = 12.5$ hours.

Section (B): HPLC determination of methomyl in tomato and cucumber fruits

This method depends on extraction of methomyl from tomato and cucumber fruits by ethyl acetate, and cleans up of the extract by using adsorbing mixture of charcoal/celite of ratio 2: 1 w/w. The determination of methomyl residues in the cleaned extract was made by HPLC using Zorbax ODS column, mobile phase methanol: water 1: 1 v/v, flow rate 1 ml/min, UV detection at $\lambda = 233$ nm. The method determined methomyl in the concentration range of 1-20 $\mu\text{g.ml}^{-1}$ with mean percentage recovery of 99.20 ± 1.100 .

A decline study was performed. The harvest date for tomato and cucumber fruits at black soil, different fields and different seasons were estimated.

Section (C): Colorimetric determination of methomyl (ferric hydroxamate method)

This section includes a colorimetric determination of methomyl (after its hydrolysis) using ferric hydroxamate method. A red color was obtained with the pesticide and it was measured at $\lambda_{\text{max}} 530$ nm.

The method determined methomyl in the concentration range of 100-600 $\mu\text{g.ml}^{-1}$ with mean percentage recovery of 99.73 ± 0.791 .

This method is used for determination of methomyl in its imported market samples.

§ Part IV: Analysis of Tetraconazole and Diniconazole

Determination of tetraconazole and diniconazole fungicides residues in tomato fruits and green beans by capillary gas chromatography

This method depends on extraction of tetraconazole and diniconazole from tomato fruits and green beans with methanol, purification of the extract with liquid-liquid partition, then further clean up by column chromatography. The determination of tetraconazole and diniconazole residues in the cleaned extract was made by GC using phenylmethylsiloxane capillary column, operating conditions: Oven temperature



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240°C, inlet temperature 280°C and detector temperature 300°C. The carrier gas was nitrogen at a flow rate of 5 ml/min. injection volume was 1 µl, with splitless injection mode using Electron Capture Detector for detection.

The method determined tetraconazole and diniconazole in concentration ranges 0.001-0.2 µg.ml⁻¹.

A decline study was performed for each fungicide for tomato fruits and green beans crops. An investigation on its kinetic order, t_{1/2} and optimum harvest date was studied.

§ Part V: General Discussion and Recommendations

This part contains comparison between the three different methods proposed for analysis of methomyl and suggested recommendations considering the safe use of studied pesticides in agriculture in Egypt.

The thesis contains 173 references, which are referred to throughout the period from 1972 – 2006. The thesis contains also 24 tables and 67 figures.

Key words:

Methomyl, Tetraconazole, Diniconazole.



**Best Thesis Awards
Cairo University**



Name: Safaa Shawky Hassan

National Cancer Institute

Dept.: Clinical & Chemical Pathology

Degree: PhD



Title of Thesis: HBV Genotyping in Hepatocellular Carcinoma (Case - Control Study)

Abstract:

Hepatocellular carcinoma (HCC) is one of the most common malignant tumors world wide. HCC almost arises in the setting of chronic progressive liver disease, in particular, chronic infection by hepatitis B and C viruses. Genetic variability of the Hepatitis B virus (HBV) strongly impacts the natural history of infection and the efficiency of diagnosis, vaccination and treatment. Our study is a case control study aimed at evaluating the prevalent HBV genotype (s) among HCC cases (50) cases which are HBsAg positive and chronic HBV Egyptian patients (80) cases. The incidence of chronic HBV in HCC cases is about 10% in our study. Results revealed male predominance, mostly from rural areas. Liver cirrohsis was found in 60% of cases, 90% of our cases is HBeAg negative compared to 70% in controls. The prevelant HBV genotype for all cases and control is genotype D.

In conclusion, further study still needed on large scale of patients to trace any possible variation in the prevalent HBV genotypes among Egyptian patients by using different genotyping methods.

Key words:

Hepatitis B Virus, Hepatocellular Carcinoma, Genotyping.



**Best Thesis Awards
Cairo University**



Name: Nabil Mahmoud Ismail Abdel-Al

Faculty: Physiotherapy

Dept.: Basic Science

Degree: PhD



Title of Thesis: Variability of Cervical Range of Motion Measurements in Normal Subjects

Abstract :

The study was conducted in the basic science department, faculty of physical therapy, Cairo University through December 2005 to March 2006. The purposes of this study was to examine the intra-examiner and inter-examiner reproducibility of range of motion measurements, to obtain norm-referencing values of active ROM of cervical spine of Egyptian population in different age groups measured by CROM instrument, and to study the effect of age and gender on cervical ROM values. Three hundred and thirty normal subjects participated in this study. Thirty normal subjects participated in testing the inter-rater and intra-rater reliability of measurements. The remaining three hundred normal subjects were assigned into five equal groups according their age as follow: Group I (17-20 years), Group II (21-30 years), Group III (31-40 years), Group IV (41-50 years) and Group V (51-60 years). Active cervical range of motion was measured by using CROM instrument for each of the six movements of cervical spine (flexion, extension, right lateral flexion, left lateral flexion, rotation to right and rotation to left). The study revealed that ICCs for intra-tester reliability ranged from 0.69 to 0.86 for tester one, from 0.69 to 0.98 for tester two and from 0.73 to 0.84 for tester three. While ICC for inter-tester reliability ranged from 0.61 to 0.89 for the first time and from 0.77 to 0.98 for the second time of measurement. Normal range of motion of cervical spine in healthy Egyptian population are different from those reported previously in other population, males have a greater cervical range of motion than females and normal cervical range of motion decrease with age. The level of significance for all tests was set as ($P \leq 0.05$).

Key words:

AROM, Anthropometry, Ergonomics, Cervical Spine, Age, Gender, CROM.



**Best Thesis Awards
Cairo University**



Name: Bassam Abd El-Majid Mohamed Refaat

Faculty: Physiotherapy

Dept.: Physiotherapy for Nervous System Disorders and
Muscle Surgery

Degree: MSc



Title of Thesis: Kinematic and Electromyographic Analysis of
Reaching Pattern in Stroke Patients

Abstract:

Background: A major prerequisite for successful rehabilitation therapy after stroke is the understanding of the mechanisms underlying motor deficits common to these patients. **Objectives:** Objectives of this study were to determine the influence of altered muscle activity amplitudes on active ROM and the level of motor impairment of reaching pattern. **Methods:** thirty stroke patients participated in the study. Their mean age was 48.5 ± 5.27 . Analysis was conducted from sitting on a chair. The patients were instructed to reach for a target placed within their arm's length in forward horizontal plane by the affected then the non affected arm. Shoulder flexion, elbow extension and wrist extension ROM were analyzed by using three-dimensional motion analysis system. Muscular EMG amplitudes were recorded from the clavicular head of pectoralis major, anterior deltoid, lateral head of triceps and radial wrist extensors. The level of motor impairment was measured by the reaching performance scale.

Results: There was a significant decrease in EMG amplitudes of the selected muscles and in ROM of shoulder flexion, elbow and wrist extension in the affected arm than the non-affected which intern affect the motor performance of reaching pattern in the affected arm of stroke patients.

Conclusion: Reduction of EMG activity amplitudes of the selected muscles was considered as an important cause of limited ROM and increased level of motor impairment of reaching pattern in stroke population.

Key words: Stroke, EMG, 3-D Motion Analysis, Reaching Pattern.



**Best Thesis Awards
Cairo University**



Name: Hewida Ahmed Hussein

Faculty: Nursing

Dept.: Child Nursing

Degree: PhD



Title of Thesis: The Impact of Health Education Program about Bone Marrow Transplantation on Improving Quality of Life of Thalassemic Children.

Abstract:

β -thalassemia is the most common hemolytic anemia in Egypt and worldwide. Bone Marrow Transplantation (BMT) is the only available treatment for cure, but although the cure that was achieved by BMT is considered an aggressive form of therapy that creates significant physical, psychological and functional problems also causes increasing level of depression and anxiety which finally affects negatively on the child's quality of life (QOL). An appropriate understanding of children to their illness and BMT procedure and their role which can help in follow and comply with it only can help to enhance the child's QOL and success BMT procedure. Aim of the current study was to construct, implement and evaluate the impact of an health educational program about bone marrow transplantation on improving quality of life of thalassemic children who would undergone BMT. Aquasi experimental design was used and a convenient sample of 60 thalassemic children who would undergone BMT and met the criteria of inclusion were recruited in the study after being admitted to BMT unit. An educational program, pre-posttest, QOL scale and depression-anxiety scales were used. Results indicated significant differences and improvement among experimental group pre-posttest and between the experimental and the control groups regarding physical, psychological, functional, depression and anxiety status ($p < 0.05$). Finding of this study emphasized the importance of availability of an health education program about BMT to thalassemic children undergo BMT procedure in managing their condition and care.

Key words:

β -thalassemia, Thalassemic Child, BMT, QOL, Anxiety, Depression.



**Best Thesis Awards
Cairo University**



Name: Abeer Mokhtar Abou Khatwa

Faculty: Nursing

Dept.: Maternal and Newborn Health Nursing

Degree: MSc



Title of Thesis: Product Stages of Pregnancy and Childbirth in Women
Living Near Power Plants Inventions

Abstract:

The aim of this correlational study is to examine the effect of residing near power line stations generating electromagnetic field on pregnancy outcomes and course of labor. Three hundred women were recruited for this study. Then the sample was divided into two groups, both groups were constituted of 150 women. The prospective group was prospectively followed up during labor and delivery in the hospitals (El Kasr El Aini University Hospital & El Kanater El Khiria General Hospital), and the retrospective group was retrospectively followed up during pregnancy in M.C.H centers (Misr El Kadima MCH & El Kanater MCH). Furthermore, the two groups were subdivided into two groups according to their residence (polluted and non-polluted) 75 woman each. Data were collected through an interviewing questionnaire designed to collect data related to socio-demographic characteristics, family history and obstetric profile (used for both retrospective & prospective groups); a labor and delivery sheet designed to collect data regarding the history of the current pregnancy and delivery (used for prospective group); the modified WHO Partograph to collect data regarding the maternal condition during labor, the fetal condition during labor and the progress of labor (used for prospective group) and the neonatal assessment sheets to collect data regarding the neonatal condition after birth, neonatal anthropometric measurements, neonatal physical and neuromuscular maturity (used for prospective group). Findings of the study revealed that, women who live near the power line station (in the polluted area) had higher levels of electromagnetic fields at their houses (peak AC = 9.50 & peak DC = 3.00) as measured by using Guass meter, higher incidence of abortion ($P < 0.001$), preterm delivery ($P = 0.001$), still birth ($P = 0.006$),



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neonatal congenital anomalies ($P = 0.002$), neonatal low birth weight ($P = 0.012$), and cesarean section delivery ($P < 0.001$) in the previous deliveries than women who live away from the power line station (in the non-polluted area). At the same time, women who live in the polluted area had higher incidence of maternal anemia ($P = 0.03$), neonatal congenital anomalies ($P < 0.001$), neonatal death ($P < 0.001$) and cesarean section delivery ($P < 0.001$) in the present delivery than women who live in the non-polluted area. In conclusion, electromagnetic field had effect on maternal and neonatal outcomes in the polluted areas than the non-polluted areas.

Key words:

Power Line Station, Electromagnetic Field, Pregnancy, Fetus, Neonate.

Engineering Sciences Sector

- **Engineering**
- **Urban Planning**
- **Computers and Information**



**Best Thesis Awards
Cairo University**





**Best Thesis Awards
Cairo University**



Name: Mohamed Mostafa Mohamed Ibrahim
Abouelhoda

Faculty: Engineering

Dept.: Computer Sciences

Degree: PhD



Title of Thesis: Algorithms and a Software System for Comparative
Genome Analysis

Abstract :

Yergleichende Genomanalyse ist ein relativ neues Gebiet der Bioinformatik, das durch die Verfügbarmkeit einer immer größer werdenden Zahl sequenzierter Genomen an Bedeutung gewinnt. Die vorliegende Dissertation präsentiert Algorithmen und Softwarewerkzeuge, mit denen mehrere Genome effizient verglichen werden können. Die vorgestellten Algorithmen lösen bisher offene Probleme der theoretischen Bioinformatik. In der Praxis reduzierten wir sowohl die Rechenzeit als auch den Platzbedarf für das Yergleichen der großen Genome.



**Best Thesis Awards
Cairo University**



Name: Ehab Ahmed Sobhy Tawfik

Faculty: Engineering

Dept.: Electronics and Electrical Communications
Engineering

Degree: MSc



Title of Thesis: Inverting and Fully Differential Current Conveyors and Applications Suitable for VLSI

Abstract:

Research in analog integrated circuits has recently gone in the direction of low-voltage (LV). The LV circuits have to show also a reduced power consumption to maintain a longer battery lifetime. In this area, traditional voltage-mode techniques are going to be substituted by the current mode-approach, which has the advantage to overcome the gain-bandwidth product limitation. Then, they don't require high voltage gains and have good performance in terms of speed, bandwidth, and accuracy. Inside the current-mode architectures, the current conveyor (CC) can be considered the basic circuit block.

The thesis objective is to introduce new CMOS realizations for different types of current conveyor and to use them in applications suitable for VLSI.

The first chapter of this work is to have a general view of different types of current conveyors. The second chapter proposes new CMOS realizations of the inverting second generation current conveyor with inverting current terminal (ICCI⁻) followed by some applications. In the third chapter a dual-output inverting third generation current conveyor (ICCI^{III+-}) is introduced; a novel CMOS realization is proposed followed by many applications to show how the ICCI^{III+-} is useful and powerful. The last chapter presents novel CMOS realizations of the fully differential voltage second generation current conveyor with inverting current terminal (FDVCCI⁻) which is a new proposed block to the second generation current conveyors.

Key words: Current Mode, Current Conveyors.



**Best Thesis Awards
Cairo University**



Name: Noran Mohamed Magdy Mohamed

Faculty: Engineering

Dept.: Civil Engineering

Degree: MSc



Title of Thesis: Fracture Behavior of Reinforced Concrete Flanged Beams under Four Point Bending in Displacement Controlled Environment

Abstract:

A four point bend test in a displacement controlled environment is used to investigate the fracture behavior of the T- shaped reinforced concrete beams. Two parameters were investigated: the ratio of flange width to web width (B/b) and the ratio of flange thickness to beam's height (t_s/h). The testing program comprises 12 beams; 3 having rectangular section and 9 having T-section. All beams are 1400 mm in length with a mid span height of 300 mm and a mid span notch of 90 mm. The beams are classified into 3 groups. In the first group, the tested beams have variable flange width to web thickness (B/b):1, 1.5, 2, 2.5, constant ratio of flange thickness to beam height (t_s/h) =0.2 and a reinforcement ratio=0.6%. The second group of beams has variable flange width to web thickness (B/b):1, 1.5, 2, 2.5, constant ratio of flange thickness to beam height (t_s/h) =0.15 and a reinforcement ratio 0.48%. The third group of beams has variable flange thickness to beam height (t_s/h):0, 0.1, 0.15, 0.2, constant ratio of flange width to web thickness (B/b) =1.5 and a reinforcement ratio 0.73%. Measurements included load, steel strain, concrete strain and deflection. Tracking for the mid span crack at each load increment was carried out. The analytical model proposed by Baluch et al. was employed. The experimental results were checked against the new fracture mechanics approach. Also, the experimental results were compared to the results of a finite element program. However, the experimental program revealed that the ratio of flange width to web width (B/b) is more effective than the ratio of flange thickness to beam's height (t_s/h). In addition to that, both the fracture mechanics approach and the finite element program are in a good agreement with the experimental results.



**Best Thesis Awards
Cairo University**



Name: Alaa El-Din Ahmed Yousef

Faculty: Regional and Urban Planning

Dept.: Urban Design

Degree: PhD



Title of Thesis: The Effect of Artificial Lighting on Urban Form.

Abstract:

This research attempts to find out how artificial lighting affects the night-time image of the city, and the perception of its urban spaces. The research also attempts on determining how lighting properties may affect the personal sensations of space users.

The research explains lighting properties and measurements in brief, and demonstrates the properties, advantages and disadvantages of different lighting equipments. It also discusses light pollution, its negative effects, causes, and recommendations to reduce it.

Through field observations a comparison is made between day and night visual image in different parts of Cairo in order to find out how artificial lighting affects visual perception. In addition, observations were made to find out the effect of the night lighting on the perception of the urban spaces.

The research demonstrates different methods used in outdoor lighting including buildings, roads, pedestrian paths, bridges, playgrounds, open spaces, fountains, sculptures and famous world spaces.

Empirical Studies

This part includes the selecting of the space case study, building the space computer model, making different lighting alternatives. Also in this section, a comparison is made between real spaces that have the same urban properties but different lighting characteristics, and through photographs of real spaces before and after upgrading their lighting conditions in order to find out how the lighting properties



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can effect the human sensation in outdoor spaces. These comparisons are evaluated through users and specialists questionnaires.

After that, questionnaires results are analyzed and the lighting properties of spaces are determined in order to reach the results and general recommendations of the research in the form of drawings and tables.

Finally the research demonstrates and analyzes the influence of the advertisement lighting on the night image of the city and the process of making the lighting master plan.

Simultaneous assay of PSA and HGF yielded a sensitivity of 96% in discriminating between BPH from malignant prostate compared to 91% for HGF and 93% for PSA alone. The metastatic PCa group showed a lower progression free survival associated with high NSE levels.

Conclusions:

The f/tPSA is useful in discriminating between BPH and PCa and thus allowing early intervention and treatment. A cutoff value of 0.24 for f/tPSA is recommended as it detects 87% of cancer cases and at the same time avoids 39 % of unnecessary prostate biopsy. Moreover, combining PSA and HGF was more accurate in discriminating between BPH and malignant prostate .High NSE levels are of prognostic significance in patients with metastatic PCa treated with hormonal therapy.

Key words:

Artificial Lighting, Outdoor Lighting, Urban Form, Visual Image, Urban spaces, Sensation.



**Best Thesis Awards
Cairo University**



Name: Hebat Allah Assem El-Fouly

Faculty: Regional and Urban Planning

Dept.: Urban Design



Degree: MSc

Title of Thesis: The Extent of Applying Action Planning Approach in the Upgrading Projects. Case Study "Manshiet Nasser, Al-Darb Al Ahmar, Old Cairo"

Abstract:

The research studies the upgrading projects management in Cairo. It covers theoretical studies concerning the two main approaches in upgrading projects management; the traditional approach and the Action Planning Approach. It studies the processes of planning and implementation in each approach and hence deduces the type of relation between them in each one. Field studies of several local upgrading projects are conducted, and through proper analysis, a general overview of the nature of the approach used in recent upgrading projects is identified. Conclusion includes the identification of the current approach used in upgrading projects in Egypt. It also includes several recommendations introduced by the researcher to improve the current management of upgrading projects in Egypt.

Key words:

Upgrading Projects, Planning, Implementation, Slums.



**Best Thesis Awards
Cairo University**



Name: Amira Mohamed Kutb

Faculty: Computers and Information

Dept.: Information Technology

Degree: PhD



Title of Thesis: Hierarchical Quality of Service Routing in Wireless Networks

Abstract:

The scalability is more challenging in the presence of both, the large number of nodes and node mobility. Hierarchical techniques have long been known to afford scalability in wireless networks. There are several clustering algorithms that construct the hierarchical map of the network topology. This thesis focuses on both categories, the 1-hop clustering and the D-hop clustering. For the 1-hop clustering, the thesis considers two clustering algorithms, the Lowest ID clustering algorithm and the Connectivity based clustering algorithm. For the D-hop clustering, it considers also two clustering algorithms, the Max Min-D clustering algorithm and the Connectivity based D-clustering algorithm. Simulation of these clustering algorithms is done using C++ programming language. Evaluation of their performance is illustrated considering different node speed criteria and the network size criteria. The comparison between them proves that the D-hop clustering is more realistic than the 1-hop clustering, and that the Max Min-D clustering algorithm is the clustering algorithm that provides better performance.

Also a new contribution will be illustrated. The quality of service parameters can be used as the clustering criteria for the cluster head selection. The QoS based clustering algorithm uses the same methodology of the Max Min-D clustering algorithm but with different clustering criteria, it uses the average delay parameter as its clustering criteria, leading to a new clustering algorithm known as Max Min-Delay clustering algorithm. Evaluation of the new clustering algorithm is illustrated considering both, the clustering metrics and the routing metrics using the shortest path QoS routing algorithm. The comparison between the new algorithm and the D-hop clustering algorithms proved that the new contribution has the best performance.

Key words:

Wireless Networks, Routing, Quality of Service.



**Best Thesis Awards
Cairo University**



Name: Amal Fawzi Al-Gammal

Faculty: Computers and Information

Dept.: Information System

Degree: MSc



Title of Thesis: Using Process Algebra for the Automatic Verification of Composite Web Services Modeled in UML

Abstract:

There is a great interest paid to the web service paradigm during the last several years. The main contexts that raise this interest are e-commerce, telecommunications and science. But the web services paradigm has a mine of problems that need to be solved. One of the most important problems is to enable the automatic composition of web services to provide a new value-added service. The problem of automatic web service composition is very tightly related to the description of web services, which means that, in order to achieve this novel goal, web services should be described following some rich and formal framework (model). The main models that address the problem of automatic composition are: OWL-S, Roman, Mealy/Conversation and Colombo Models. Each of these models provides a framework for characterizing and describing web services. They also provide different automatic composition algorithms. In our research, we focus on the modeling of the automatic composition problem. The most recent and richest model is the Colombo model, as it unifies all the previously mentioned models. The first problem we discover is that Colombo adapts complex and low-level formalisms which are difficult even for experienced web



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service developers. The first contribution of this thesis is that we have used Standard UML 2.0 to simulate every aspect of the Colombo model. To achieve this we have proposed a UML profile by extending the base Standard UML2.0 constructs. We have implemented a prototype for the proposed UML profile on Visual Paradigm for UML (VP-UML) version 6 CASE tool. The second problem is that Colombo is still a theoretical, conceptual model, which means that it does not have an associative language. The second contribution of this thesis is the proposal of a set of related XML documents that can serve as a core for a Colombo language. We have also proposed the transformation rules between the proposed UML profile and the proposed Colombo XML documents. These transformation rules are also implemented in our prototype. Here we assume that the composition algorithm proposed by Colombo accepts and produces XML documents that conform to the DTDs of the proposed XML documents. The third problem we consider is that after the composite web service is produced, there should be some method to analyze and verify that the resulting composite service performs what is expected from it to do, and ensure some important properties (like the system will never reach a deadlock). The third contribution of this thesis is the proposal to map the resulting composite service to Process Algebra (PA) formalisms to be able to utilize the sophisticated automated verification tools associated with PA. Mainly we propose to utilize process equivalence and model checkers tools of PA. The fourth problem is that none of the previous work on web services considers the Spawning issue. Spawning of services is the situation when several instances of a service are activated and executed by interacting with each other. The fourth contribution of this thesis is the proposal of a simple method to model spawning situation using PA notations. Consequently a composite service that includes a spawning situation can be verified the same way as a composite service that doesn't include a spawning situation.



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Inter/Multidisciplinary and Future Sciences Sector

- **African Studies Institute**
- **National Laser Institute**



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Cairo University**



Name : Dizi Rauf Rage Daniel

Institute: African Studies

Dept.: Economics and Political Science

Degree: PhD



Title of Thesis: Food Aid and Its Impact on African Development with
Special Reference to Southern Africa Since 1980.

Abstract:

The aims of this study are: Identifying the history of food aid in Africa since 1980 including changes in the quantity and the quality of food aid deliveries and the geographical distribution of recipients and donors, analyzing views advocating using food aid and those against it as well as its cost effectiveness as a development instrument, and proposing a new food aid regime for the future which depends on future food aid needs and factors influencing future supplies.

To achieve the aims of this study, The researcher used the evaluation of the effectiveness of food aid on the production and price of food commodities, food security, the status of nutrition and poverty.

Key words:

Food Aid, Food Assistance, Food Policy, Food Security, Southern Africa, Africa South of the Sahara.



**Best Thesis Awards
Cairo University**



Name: Aly Mahrous Aly Ahmed

Institute: African Studies

Dept.: Natural Resources



Degree: MSc

Title of Thesis: Some Factors Affecting Cattle Mastitis in Egypt and Tunisia Applied Study on Milk Production.

Abstract:

The current study was carried out in some Egyptian dairy farms with different herd health management and sanitation practices during the period from December 2004 to December 2005. The study highlighted the importance of identifying the role of some environmental pathogens (*Escherichia coli* and *Salmonella spp*, that have human health importance and management of the dairy animals environment) in the epidemiology of subclinical mastitis in Egypt, with comparable study conducted in Tunisia during the period between June 2000 and September 2001.

Key words:

Environmental Pathogen, Sub Clinical Mastitis.



**Best Thesis Awards
Cairo University**



Name: Mohammed Saeed Abbas Gab Allah

Institute: African Studies

Dept.: Natural Resources



Degree: MSc

Title of Thesis: Environmental Studies and Chemicals on Some Common Pasture Plants in Egypt and Libya

Abstract:

The present investigation was carried out in Wadi El-Ramla, coastal sand dunes and salt marshes in North West coast of Egypt during spring 2005 and 2006 to assessment the relationship between some common range plants and environmental factors in terms of botanical structure, productivity, nutritive value and their ability to sustain and renew themselves under different habitats.

Results showed that ninety eight plant species belonging to thirty families. The plant species were divided into sixty one perennials (62%) and thirty seven annuals (38%). According to palatability fifty nine were palatable (60%) and thirty nine were un-palatable (40%). The richest habitat in the number of species was Wadi El-Ramla (fifty five species) followed by coastal sand dunes (twenty four species) and the poorest habitat was salt marshes (nineteen species). The studied characteristics of range plants were frequency, abundance, plant density, cover percentage, importance value and productivity. Nutritive value of range plants evaluated by determining crude protein, crude fiber, ash, ether extract, and nitrogen free extract percentages. All characteristics showed differences between habitats.

Key words:

Frequency, Abundance, Density, Cover, Importance Value, Fresh Yield, Dry Yield, CP, EE, NFE, CF, Ash, Wadi El-Ramla, Coastal Sand Dunes and Salt Marshes.



**Best Thesis Awards
Cairo University**



Name: Jala Mahmoud El-Azab

The National Institute of Laser Enhancement

Dept.: Eng. Applications Sci. of laser

Degree: PhD



Title of Thesis: A Study of Some Aspects of The Chaotic Behavior of
Semiconductor Laser Diodes

Abstract:

Security is a crucial issue in optical communication systems. Chaotic communication, in which the encryption is held at the physical layer, provides a high security level. It requires a pair of synchronized chaotic laser diodes that can be used as a transmitter-receiver pair. Our main purpose, in this work, is to study the chaotic behavior of semiconductor laser diodes and the different synchronization schemes.

Some methods used to generate chaos using a laser diode, such as optical feedback, external optical injection and optoelectronic feedback, are first discussed in detail. To adequately describe the temporal behavior (dynamics) of a chaotic laser diode, the amplitude and phase of the laser electric field together with the density of charge carriers inside the laser cavity must be obtained. Thus we developed a numerical algorithm to simulate these dynamics, which depend on the method of chaos generation. The type of the route to chaos when a laser diode is subjected to optical feedback depends on the feedback parameters (strength and delay) as well as the injection current. A detailed study of these different routes to chaos was carried out resulting in a 3D phase diagram. The effects of external optical injection and optoelectronic feedback on the dynamics of the laser diode were then overviewed.

To study the synchronization process between two similar chaotic laser diodes, we extended the algorithm to describe a transmitter-receiver pair. According to the method of chaos generation and coupling parameters (which include frequency detuning and injection strength), the different synchronization schemes were presented. The synchronization quality strongly depends on the parameter mismatch between the transmitter-receiver pair. Using a synchronized chaotic laser diode pair, a message can



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be embedded in the chaotic carrier and recovered at the receiver end using different encryption techniques. With the purpose of maintaining robust synchronization between the transmitter and receiver laser diodes, we developed a scheme that reduces the effect of parameter mismatch. Then, we studied the synchronization recovery time after desynchronization burst that can occur in a communication link and its dependence on the parameter mismatch and the intrinsic parameters of the laser diode pairs.



**Best Thesis Awards
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Name: Amal Abd El-Fattah Omer

The National Institute of Laser Enhancement

Dept.: Environmental Applications



Degree: MSc

Title of Thesis: Enhancement of the Performance of (LIBS) Technique Adopting Double Pulse Configuration for Silicon Analysis.

Abstract:

A comparative study between single and double pulse-laser induced breakdown spectroscopy (LIBS) was performed on n-type silicon (111) target. A new mobile double pulse Nd: YAG laser at 1064 nm was used throughout the measurements. The experiment was carried out in two ambient gases; air and argon with different pressures of 0.7, 470 and 1000 hPa in air and 470 and 1000 hPa in argon. The ambient gas interacts with the laser beam and the plume, several mechanisms are involved in these interactions, such as, plasma shielding, shock wave production and plasma expansion. Plasma shielding effect reduces laser-material coupling efficiency. However, the induced shock waves increase the coupling efficiency in case of double pulse LIBS. The spectral emission of lines emitted from both the silicon target and that from the ambient gas atoms surrounding the target have been analyzed. In single pulse, at the atmospheric pressures (1000 hPa) the emission intensities of lines emitted from the silicon target have lower values than that obtained in low pressure (0.7 hPa) and from the ambient gas (N I and Ar I lines). It has been found that in case of double pulse LIBS, the emission intensities of atomic and ionic lines are strongly enhanced at higher pressures. A discussion of local thermodynamic equilibrium state is presented. Using Stark broadening of the line profiles of atomic silicon, the electron number densities for single and double pulses are calculated ($N_e \approx 10^{17} \text{ cm}^{-3}$). Plasma excitation temperature ($T_e \approx 5000\text{-}7000 \text{ K}$) and ionization temperature (9000-13000 K) are determined from Boltzmann plot and Saha-Boltzmann equation, respectively. The double-pulse laser induced plasma has been studied at different interpulse delay times: 1, 2, 5, 10, 15, 25 and 50 μs . The influence of the interpulse delay time on the signal enhancement of the atomic and ionic lines and the plasma parameters is investigated. Crater depth measurements are estimated via optical microscopy. The results indicated that the crater depth, the atomic and ionic line intensities increase at short interpulse delay time (1-5 μs).

Social Sciences Sector□

- **Law**
- **Commerce**
- **Economics and Political Science**
- **Mass Communication**



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Name: Doaa El-Sawi Youssef

Faculté de Droit

Section: de Droit Public

Degree: PhD



Title of Thesis: Les Lois Organiques et Leur Relation avec le Pouvoir et les Libertés

Abstract:

Les règles de Droit Constitutionnel ont plusieurs sources, dont les sources écrites et les sources coutumières. Parmi les sources écrites de ces règles, se trouvent des lois qui règlent des sujets de nature ou de fond constitutionnels, connues sous le terme de « lois organiques », pour les distinguer des autres lois normales qui ne règlent pas des sujets constitutionnels.

Les sujets de Droit constitutionnel, par leur nature ou par leur fond, réglés par les lois organiques d'après la position adoptée par la majorité de la doctrine, sont en relation avec les trois pouvoirs publics législatif, exécutif et judiciaire, ainsi qu'avec les droits et les libertés. En effet, il existe un lien très étroit entre les lois organiques et le pouvoir et les libertés, qui s'explique par le fait qu'elles organisent certains des sujets relatifs à ces derniers.

Toutefois, la relation des lois organiques avec le pouvoir et les libertés ne se limite pas à ce seul côté, aussi logique que cela soit, mais elle s'étend à certains autres domaines.

En effet, tout d'abord, l'autorité publique, représentée par le pouvoir législatif, est chargée de l'adoption des lois organiques. Ce, avec le concours du pouvoir exécutif dans ce domaine, ainsi que celui du pouvoir judiciaire.

Ensuite, le pouvoir judiciaire contrôle la constitutionnalité des lois organiques dès qu'elles y touchent, soit a priori, dans les cas où ce contrôle est nécessaire pour l'adoption de telles lois, soit a posteriori, en cas de litige devant l'autorité judiciaire.



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Enfin, la relation entre les lois organiques, le pouvoir et les libertés est mise en valeur par les définitions des lois organiques, dont doctrine et juges cherchent à déterminer les domaines d'application ainsi que la nature des sujets qu'elles règlent.

Devant cette relation étroite entre les lois organiques, le pouvoir et les libertés, nous avons décidé de consacrer cette étude à la définition de ces aspects, en la divisant en deux parties principales :

Dans la première partie, nous traitons, dans le premier titre, de la définition des lois organiques et de la détermination de la philosophie derrière son existence et nous démontrons que les définitions présentées par la doctrine et utilisées par la jurisprudence pour définir ces lois se sont axées sur son côté objectif, qui traite de l'objet de son organisation, c'est-à-dire les sujets du pouvoir public, des droits et des libertés.

Par ailleurs, la philosophie derrière son existence réside dans la nature du rôle qu'elle joue par rapport à la Constitution, c'est-à-dire en la complétant et en mettant en œuvre ses règles. Ce qui a influé sur sa dénomination comme lois essentielles ou lois complétant la Constitution en Égypte et, lois organiques en France, ce que nous avons traité dans l'introduction.

Le deuxième titre traite des procédures d'adoption de ces lois, ce qui montre que cette relation s'examine sous deux angles : d'une part, le pouvoir législatif est compétent de manière originaire pour adopter ces lois, et le pouvoir exécutif peut les adopter sous certaines conditions. Le pouvoir judiciaire et quelques organes de l'État jouent également un rôle dans cette adoption. D'autre part, les lois organiques organisent les sujets en relation avec les pouvoirs publics, les droits et les libertés, dès lors qu'ils sont de nature et de fond constitutionnels. Ce qui influe sur leurs procédures d'adoption, différentes de celles des lois ordinaires.

Dans la deuxième partie, nous traitons, dans le premier titre, de l'étendue de l'application des lois organiques. Nous y montrons que cette relation existe par le fait que ces lois organiques sont chargées d'organiser les autorités publiques : législatives, exécutives et judiciaires, ainsi que certains organes de l'État. Mais, également, de déterminer les règles de mise en œuvre de certains droits et libertés et d'instaurer des garanties afin de les préserver.

Dans le deuxième titre de cette partie, relatif au contrôle de constitutionnalité des lois organiques, nous mettons en lumière le lien étroit entre les autorités publiques et les lois organiques par le contrôle de constitutionnalité de ces dernières par ces autorités, tout en ayant sauvegardé son domaine d'application et le fait qu'elles réglementent les autorités publiques, les droits et les libertés.

Nous concluons cette étude par une récapitulation des points examinés et par la proposition de quelques recommandations que nous jugeons nécessaires pour la protection de l'idée des lois organiques dans le système constitutionnel égyptien et, par conséquent, des autorités publiques, des droits et des libertés qu'elles réglementent.



**Best Thesis Awards
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Name: Ahmed Anees Ahmed

Faculty: Commerce

Dept.: Accounting

Degree: PhD



Title of Thesis: The Relationship between Auditors' Legal Liability,
Audit Quality and Financial Statements Users'
Decisions

Abstract:

The auditor's legal liability regime comprises a set of legal rules that governs the different aspects of the auditors' legal liability. These aspects are: (1) liability rule; (2) Liability scope; (3) damage rewards; and (4) damage apportionment. Each aspect encompasses many alternative legal rules, and each one of them has different impact on the level of the auditor's liability, and hence on the auditor's efforts (audit quality), and on the volume of investments.

There is a great debate about the legal liability rules that would lead to optimal levels of audit quality and volume of investments. This issue is of great importance in Egypt because of the growing trend toward privatization and economic reform. In addition to, the need to attract foreign direct investments mandates enhancing the quality of financial reports to foster investors trust in financial statements. Finally, since the value of accounting information depends on audit quality, there is an urgent need to enforce the civil legal liability regime of auditors because it is one of the fundamental foundations of audit quality. Therefore, the research problem of this study is to determine the features of the appropriate auditor's legal liability regime in Egypt.

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1- The Research Problem

2- The Research Objectives:

211- Determine the most important factors that prevent from enforcing the civil legal liability regime of auditors in Egypt.

2/2- Examine the relationship between the alternatives of the auditor's legal liability rules, audit quality (or audit efforts) and the level (volume) of investment.

2/3- Determine the features of the appropriate auditors' legal liability regime in Egypt.

To accomplish these objectives, the research has been divided into four chapters as follows:

Chapter one: The Auditors Legal Liability.

Chapter two: The Impact of Alternatives of Auditors' Liability Rules on Audit Quality.

Chapter three: Auditors' Legal Liability and Financial Statements Users' Decisions.

Chapter four: Research Results and Discussions

3- Results and Recommendations

311- Results

3/1/1- The results show that the factors that enforce the auditors' legal liability regime in Egypt are the following:



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The ease and time of litigation procedures.
The appropriateness of the damage rewards.
The clarity of the legal rules governing the auditors' legal liability.

The importance of the role of the agencies and organizations supervising and organizing the auditing profession and the stock exchange market with regard to performance of the auditors.

3/1/2- The results indicate that respondents (both auditors and investors) are not aware of the legal rules of the auditors' legal liability as mentioned in the Egyptian laws.

3/1/3- There is positive relationship between damage rewards, level of auditor's efforts and volume of investments.

3/1/4- The results show that a switch from applying the primary beneficiary rule to the foreseen user rule will lead to an increase in audit effort and volume of investment. However, switching from the foreseen user rule to the foreseeability rule will lead to a decrease in auditor's effort (audit quality).

3/1/5- Finally, the results also show that there is an inverse relationship between auditor's legal liability with regard to damage apportionment and audit effort. However, the relationship is positive between auditor's legal liability with regard to damage apportionment and volume of investments.

3/2- Recommendations

3/2/1- Change the item no.109 of the law of corporations' nO.159 for the year 1981 to make auditor's liable for negligence toward the member of a limited class of persons known to the auditor and intended to rely upon his report. However, any other person that does not belong to this class, the auditor should not be liable for.

3/2/2- Reform the stock exchange market law, no.95 for the year 1992 to:

Make the firm's management and its auditors liable for fraud or gross negligence which will lead to misleading information to financial statements users who buy or sell securities.



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Set the criteria that can be used by civil courts to determine the damage rewards to the plaintiffs in securities suits.

Allow the judge to determine the damage apportionment among defendants.

- Apply the hybrid apportionment rule in securities suits



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Name: Heba Salah El-Din Abou El-Sood

Faculty: Commerce

Dept.: Accounting

Degree: MSc



Title of Thesis: The Usefulness of Accounting Information, Economic Variables and Corporate Governance Measures in Predicting Corporate Failure – An Empirical Study

Abstract:

The study is directed to adapting a corporate failure prediction model applied to a sample of Egyptian companies listed in the Egyptian stock market. A sample of 79 companies drawn from the 100 most actively traded firms listed in the Egyptian stock market has been used for the empirical testing.

A pooled sample is formed covering the period 2000-2005 inclusive. The empirical study emphasized improving failure prediction accuracy by introducing two classes of variables besides financial ratios based on accounting information. These classes of variables are economic variables and corporate governance measures. Logistic regression analysis has been used to test the predictive accuracy of four models. Model I included accounting information only. Model II added economic variables to accounting information. Model III included corporate governance measures and accounting information. Finally, model IV employed these three classes of variables together.

Key words:

Corporate Failure Prediction, Accounting Information, Economic Variables, Corporate Governance Measures.



**Best Thesis Awards
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Name: Mohammed Salman Mohamed Salman Tayie

Faculty: Economics and Political Science

Dept.: Political Science

Degree: Ph. D



Title of Thesis: The Scarce of Water Resources and International Conflict: A Case Study of the Nile River Basin

Abstract:

This study aims at analyzing the correlation between the water resources scarcity as an independent variable, on one hand, and the international conflict as a dependant variable, on the other hand. So, it aims at testing the effect of water resources' scarcity in the Nile Basin countries on the international water conflict in the hydrological regional regime of the Nile Basin (1980-2005).

Therefore this study aims at identifying the present water status through evaluating the available or non-available water resources and to what extend they are used (exploited) and developed while satisfying the present needs of industry, agriculture, navigation, generating electricity, and to what extent do these resources suit the political and economical changes on the national, regional, and international level and the requirements of change and development through many forms that varies between the traditional and the inventive ones in a way that satisfy the future needs of water and that keeps the cycle of development moving within the ten countries of the Nile basin.

Key words:

International Conflict , International Water Conflict , Regional Regime, Externality, Risk Society, Water War, Water Crisis, Water Security , Water Policy , Water Strategy , Hydropolitics , Hydrostrategic , Water Terrorism , The Human Right to Water, Virtual Water, International Freshwater Sharing, Water Resources, International River , International Drainage Basin, International Watercourse, Water Balance, Riparian State, Environmental Security, International Water Cooperation, Nile Basin Initiative.



**Best Thesis Awards
Cairo University**



Name: Yasmin Ahmed Mostafa Sakr
Faculty: Economics And Political Sciences
Dept.: Economics



.Degree: MSc

Title of Thesis: The Economic Efficiency Of Using Water Resources In
The Egyptian Agriculture Sector And The Future
Challenges

Abstract:

The Thesis is concerned with policies needed for achieving the economic efficiency of allocating water resources , Since the agricultural sector is the main consumer of water in Egypt and water is the main determinant of the agricultural expansion needed to fill the Egyptian Nutritional Gap . These policies must go with other ones needed to achieve fairness of allocating water resources .

Using linear programming, two models were reached . The first is based on maximizing the net return per unit of water (1000 cubic meters) , While the second depends on minimizing water requirements for the cropping pattern. Those models can be used in planning alternatives for the current cropping pattern .

The Thesis was concluded by some recommendations of how to manage both sides of the demand and supply of water resources in the Egyptian Agricultural Sector to achieve economic efficiency .

Key words:

Agricultural Economics, Economic Efficiency, Natural Resources, Water Resources, Water Budget, Linear Programming, Irrigation Water Pricing



**Best Thesis Awards
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Name: Nermeen Zakaria Ismail Khedre

Faculty: Mass Communications

Dept.: Public Relations and Advertising

Degree: PhD



Title of Thesis: The Media Treatment of the International Events: A
Study of a Sample of the Egyptian, and American
Mass Media.

Abstract:

This study aims to determine the media treatment of the International events that the chosen Egyptian and the American Mass media had presented, also, to know their point of views towards it. Besides, studying the role that the Mass media play in setting up the image of the United States of America by studying, some of important events such as, Iraqi war, Palestinian and Iraqi elections, the Palestinian issue and the developments of the Arab – Israeli Conflict, the Syrian and and Lebanon Crisis, and the Irani nuclear Crisis, moreover by knowing the components of these images, and determining its different characteristics in order to specify the most important reasons causing it.



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Name: El-Amira Samah Farag Abd El-Fattah

Faculty: Mass Communication

Dept.: Broadcasting

Degree: MSc



Title of Thesis: Representation of Youth in Arabic Drama Presented in the Egyptian Television

Abstract:

This work tended to examine the representation of youth in Arabic drama presented in the Egyptian television . The study tried to reach how the Arabic drama present life of youth characteristics , problems and subculture . This was in order to determine drama role in drawing stereotypes to youth life which construct –at the end– an image about them in people minds and thoughts. The study also tried to stand for experts point of view of what is presented about youth & how this affect society's opinions & attitudes towards youth .

A review of the literature as it pertains to the television drama & representation of youth is provided .

The discussion is suited within the representation & image literature .
methodology , work packages, results & study time schedule is also provide



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Name: Mona Mohamed Mahmoud
Faculty: Arts
Dept.: German Language and Literature
Degree: PhD



Title of Thesis: Stilistische Analyse der Erzähltechniken in deutschsprachigen Prosawerken des Naturalismus und Impressionismus. Eine linguistische Untersuchung am Beispiel von ‚Papa Hamlet‘ und ‚Lieutenant Gustl‘.

Abstract:

The topic of this doctoral thesis is the linguistic stylistic-analysis of the narrative techniques "interior monologue" and the so-called "Sekundenstil" into its micro-stylistic components. Thereby the dissertation explores the language and stylistic elements, which constitute these narrative techniques. The literary works under study are examples par excellence both for the literary movements of the naturalism and impressionism and for the narrative techniques. Arno Holz' and Johannes Schlafs Papa Hamlet (1889) is an example for the naturalism and the narrative technique of the so-called "Sekundenstil". Arthur Schnitzlers Lieutenant Gustl (1901) is considered as an example for the impressionism and the narrative technique of the "interior monologue".

Key words:

Linguistics, Stylistic, Applied Stylistics, Stylisticanalysis, Narrative Techniques, Naturalism, Impressionism, Sekundenstil, Interior Monologue, Papa Hamlet, Lieutenant Gustl .



**Best Thesis Awards
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Name: Omaima Mohamed Anwar Abbas

Faculty: Arts

Dept.: Psychology

Degree: MSc



Title of Thesis: Some Neuropsychological Indicators Correlated with Vulnerability to Substance Abuse

Abstract:

The crux of current study is to compared the neuropsychological functioning of none abusing and substance dependent male subjects , with and without a family history of substance abuse . also it assessed the interaction effects between substance dependence and family history of substance abuse , upon the executive cognitive functions , using analysis of variance .Subjects were 126 males with mean age of 16.4 years ($SD = 3.3 \pm$) , (Range = 10-24 years) . 62 of them were sons of male substance abusers (27 were active substance dependents with mean age of 18.6 years ($SD = 1.99 \pm$) , whereas 35 of them were none substance users with mean age of 13.97 years ($SD = 2.55 \pm$)) . And the rest of subjects ($n = 64$) were sons of none substance abusers (17 were substance dependents with mean of age 20 years, ($SD = 2.06 \pm$) , and 47 subjects were none substance users with mean age of 15.55 years , ($SD = 2.9 \pm$)) .Information were collected in terms of some particular demographic, substance involvement, and family history of substance abuse. Subjects were administered neuropsychological tests of executive functioning , and they were also administered questionnaire of aggression and impulsivity .

The results revealed that high risk groups (substance dependents and none users); with family history of substance abuse; performed most poorly on neuropsychological tests of executive functioning. After controlling for the subject's age , their degrees on aggression and impulsivity questionnaires, and father's substance use years, there were not any significant interactions effects between substance dependence and family history of substance abuse upon the executive functioning .



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Which means that these variables have separate effects on executive cognitive functioning .Whereas there were significant effects of family history of substance abuse upon the executive functioning, substance dependence had not such effects.

The possible contribution of such findings to substance abuse research were discussed .

Key words:

Executive Functions, Frontal Lobe Functions, Substance Abuse, Substance Dependence Vulnerability.



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Name: Mahmoud Ahmed Al-Taweel

Faculty : Dar El-Ulum

Dept.: Literary Studies

Degree: PhD



Title of Thesis: Luzumiyât of "Abul Alaa Al-Maarri"

Abstract:

The thesis is divided into: a Preface, an introduction four chapters and final conclusion.

The First Chapter, deals with word structure like contrast, frequency, correspondence and collocation.

The Second Chapter, discusses the elements of cohesion at the level of the lines of poetic text.

The Third Chapter, treats the most important stylistic features of poetic image such as simile, embodiment, personification, and paradox.

The Fourth Chapter, deals with Rhythm structure at a two level : out Rhythm that includes Metre and Rhyme. Then inter Rhythm that consists of phonetic structure, word structure, and syntax structure.

The conclusion sums up the most important results occurring through out the research.

Key words:

Luzumiyat, Al-Maarri, Stylistic Analysis, word Structure, Contrast, Frequency, Correspondence, Collocation, Cohesion, lines of poetic text, stylistic Features, Poetic Image, Simile, Embodiment, personification, Paradox, Rhythm Structure, out Rhythm, Inter Rhythm.



**Best Thesis Awards
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Name: Muhammed M. Ibraheem Fayed

Faculty: Dar El-Ulum

Dept.: Islamic Sharia

Degree: MSc

Title of Thesis: Jurisprudential Selections for Ashhab Ibn Abed El Aziz
and how much Affiliation to Malik Ideology



Abstract:

Jurisprudential selections for Ashhab Ibn Abed El aziz and how much is the affiliation for Malik ideology" under this name I established my study which I aimed to introduce Ashhab Ibn Abed El Aziz and demonstrate his jurisprudential and attempt place, and his impression in the Islamic juristic knowledge and history .So , for natural of the study and scientific material it had to be in four chapter leading them three preliminary researches. Pursuit by concluding section.

Key words:

Selections, Ashhab Ibn Abed El aziz, Malik ideology Cleanness, Prayer, Funeral Procession, Almsgiving, Fasting, Hajj, Sacrifice and Hunting, Sale, Marriage, Stealing Punishment, Reprehension, Penance.



**Best Thesis Awards
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Name: Abd Al-Khalek Ali Abd Al-Khalek

Faculty : Archaeology

Dept.: Islamic Archaeology

Degree: PhD



Title of Thesis : Islamic Pottery in the Ayyubid Period in Egypt & Syria (Bilad El-Sham) Through a New Collections, a Comparative Archaeological Study.

Abstract:

The study deals with:

Islamic Pottery In The Ayyubid Period In Egypt & Syria (Bilad El-Sham) Through A new Collections , A comparative Archaeological Study .

The study was divided into two parts in addition to the introduction, the preface and the conclusion.

The first part was entitled “A Descriptive study” In this part, I described 728 plate include 728 fragments of Ayyubid pottery, 290 piece of them are published for the first time in this study

The Second part was entitled “Analytical study for Ayyubid pottery” it was divided into 3 sections, the first section was entitled “The Islamic pottery in the Ayyubid period” it was divided into 3 chapters dealt with the Ayyubid pottery, the forms of the Ayyubid pottery the materials the colours - the glazes of the Ayyubid pottery, the manufacture centers.

The second section was entitled the kinds of Islamic Ayyubid period. It was divided into five chapters dealt with, the pottery decorated underglazes, luster ware pottery, laqabi ware pottery, the pottery that incised and graved with different colours, the pottery that incised and graved with one colour.



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The third section was entitled “An analytical study for different kinds of decoration on the Islamic pottery in the Ayyubid period” it was divided into 9 chapters they dealt with human decoration, animal decoration, birds decoration , compound decoration, botanic decoration , geometrical decoration ,clothes decoration, writing decoration, weapons decoration, musical instruments .

In the conclusion, I pointed out the important results I reached through the study. Then there is a list of references and sources then the attachments.

Key words:

Ayyubid Pottery, Lustre Ware, Incise Ware, The Decoration, Clothes, Weapons, The Colours, Islamic Art, Human Figure.



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Name: Mahmoud Ebeid Shahat Maghraby

Faculty: Archaeology

Dept.: Egyptology

Degree: PhD



Title of Thesis: Demotic Documents from Sedment El- Gebel.

Abstract:

This study aims at shedding a light on an important and unfamiliar source of Demotic Documents " Cartonage of Demotic Papyri", which recovered from the mummies of the human and sacred animals. As well as study of 15 demotic documents from the recent excavations of SCA (season 1996-1997) in Sedment El-Gebel, the main necropolis of Ihnasya El-Medina, kept now in Ihnasya El-Medina Magazine.

This dissertation is divided into two parties, the first part deals with, Ihnasya El-Medina (Herakleopolis Magna) and its importance, Sedment El-Gebel, the main necropolis of Ihnasya, provenance of documents, The Cartonage, cartonage of demotic papyri and its content, description of the papyri, and dating of the papyri.

While the second part is dedicated to study of the documents which comprise several topics such as: letters, accounts, lists of the proper names, contracts, texts dealing with the arable lands.

At the end, the results, and Appendix consisting of demotic words, proper names, titles and professions, divine names, numerals, fractions, dating, Hieroglyphic, Coptic, Greek, and Arabic words quoted, as well as plates and facsimiles.

Key words:

Ihnasya El-Medina, Sedment El-Gebel Necropolis, The Cartonage, Gesso, Cartonage of Demotic Papyri, Demotic Documents, Tomb of The Wooden Coffins, The Human Mummies, Mummies of the Sacred Animals, Archive.



**Best Thesis Awards
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Name: Mahmoud Abd El – Hafez Mohamed

Faculty: Archaeology

Dept.: Conservation

Degree: MSc



Title of Thesis: A Study of the Treatment and Conservation of Historical Adobe Structures "Applied on Some Adobe Buildings in Qasr City at El-Dakhla Oasis"

Abstract:

Archaeological adobe structures commonly known as mud brick buildings represent a significant phase of the historical and civil evolution phases in a man's life. Adobe structures are considered unique in style from which the viewer can conclude the scientific and technical program of the Ancients. That is because of the several development stages they went through reflecting various models of that program during subsequent historical eras. Yet in the past years and up till now adobe structure have been facing destructive weathering factors which resulted in severe damage, the point that encourages scientific studies and research work to set scientific basis and rules for the preservation of adobe architectural heritage, and also encourages researchers with different majors, specifically in the conservation field to direct their scientific efforts towards serving conservators of adobe structures, specially that libraries of the Arab world lack scientific reference that serve the restoration and conservation of adobe buildings

Key words:

Islamic Qasr City, Western Desert, The New Valley, Oases, Dakhla Oasis, Adobe (or) Mud bricks, Adobe Structures (buildings), Deterioration ,Conservation , Chemical Treatment.



**Best Thesis Awards
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Name: Sameh Said Ismail Ahmad

Institute: Educational Studies

Dept.: Instructional Technology

Degree: PhD



Title of Thesis: The Effect of Using a Suggested Strategy on
Developing the Computer and Communication
Skills of the Mentally Retarded

Abstract:

Interest in caring of the mentally retarded and the educable has increased in recent years. Previous studies have shown that computer can be an effective tool for teaching the educable mentally retarded and developing their communication skills. But there are no computer syllabi or programmers in Egypt especially designed for this category of children. International experience indicated that some of the computer skills are teachable to them, this study will lead to developing the computer and communication skills to the educable mentally retarded.

So this study aimed to: Designing the suggested multimedia-based strategy for developing the computer and communication skills of the educable mentally retarded, Developing an inventory computer skills and concepts which are needed for educable mentally retarded, Developing the computer and communication skills of the educable mentally retarded.

Key words:

Multimedia-Based Strategy for Educable Mentally Retarded, Computer Assisted Instruction, Computer Skills, Educable Mentally Retarded.



**Best Thesis Awards
Cairo University**



Name: Aysam Saad Mohamady Mahmoud

Institute: Educational Studies

Dept.: Foundations of Education

Degree: MSc



Title of Thesis: Females, Education in Ancient Egypt (3150 B.C - 343 B.C)

Abstract:

The female had acquired a special status within the ancient Egyptian society, and this was obvious through her societal position within this society which include (political, social, legal, economical cultural and religious) positions.

At political level, the female had ruled the country and participated in dispatching internal and external political events in the state. And at social level, the society had undertaken to reserve her marital rights, and she was free to choose her life partner. And in regard to her legal position, she had the right to inherit or to be inherited, to bequeath or to be bequeath, she also had the right to make contracts, she had the prosecution capacity and testimony, and as well as males in punishments, the right of adoption and the right of learning.

And the female had occupied a good economical status in ancient Egypt, that she had separated finance from her counterpart, she had the right to obtain her own properties and she had the right also to work and practice her activity in all life spheres.

And in regard to female cultural status, she had reached to cultural and cognitive level not less important than males, and so her religious position not less important than other societal status that female had raised to God's ranks and had occupied a position in temples as priests.

The female wasn't deprived from her fortune in familiar education, that family in ancient Egypt had ensured for her children-males and females-quiet and coherent familiar atmosphere which depends on religiousness, forgiveness, working and participation love. The ancient family as well undertaken to raise the girl as well as the



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boy, keeping her and preparing her to be helpful member in society, so her parents care for her learning, she was receiving the settled learning for males in learning society institutions.

Key words:

Females, Education, Ancient Egypt.



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Name: Abeer Sedeek Ameen Mohamed

Faculty: Kindergarten Education

Dept.: Educational Sciences



Degree: PhD

Title of Thesis: The Effectiveness of Home-Kindergarten Cooperation
in Developing Communication Skills in Hard-of-
Hearing Children Preparation for Primary One

Abstract:

The research aims to study the effectiveness of integration between the kindergarten and the family in the use of some communication skills to prepare the hard-of-Hearing child for study in first primary.

The researcher has adopted the experimental approach. The research sample includes three groups :one control and the other two experimental and the researcher has used the “Good Enough- Harris “ draw a man test as well as the socio – economic level of Abelel Aziz ElShakhs and the Hard-of-Hearing linguistic readiness for study in first primary, as prepared by the researcher. She has also used the suggested program prepared by her. Results have shown that the children of the second experimental group have done better than the children of the first experimental group due to the application of the parent’s Guide integration between the home and kindergarten. The suggested program only has been applied to the children of the first experimental group through the linguistic readiness test of hard-of-hearing children for study in first primary. While indicates the effectiveness of the Home-Kindergarten cooperation in the use of some communication skills to prepare children with hearing handicaps for study in first primary.

Key words:

Integration, Hard-of-Hearing, Communication Skills, Family, Kindergarten



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Name: Noha Diaa El-Din Abd El-Hamid.

Faculty: Kindergarten Education

Dept: Psychology



Degree: PhD

Title of Thesis: The Effectiveness of a Construction Play Program in Improving Psychological Adjustment for Low Vision Children and Its Reflection on parenting stress of their Mothers.

Abstract:

The problem of current study is pinpointed as the possibility of improving psychological adjustment levels for low vision children by implementing a desirable activity such as a construction playing, and testing its reflection on parenting stress of their mothers. Semi experimental approach had been applied on a sample of (16) low vision children (12 male and 4 female) and their mothers, at "Sight saving school" in El- Sahel educational directorate – shubra.

Stanford-Binet intelligence scale: fourth edition (1998), Child Behavior Rating Scale (2005), Parenting Stress Index (1988), as well as a Construction Play program (2005), had been applied on them.

Results proved that there are statistically significant differences between mean of rank for pre and post test of total psychological adjustment and its dimensions for low vision children, between mean of rank for pre and post test of parenting stress as a whole related to child and parents characteristics and its dimensions for low vision children mothers in favor of post test, except for parental health as a affiliated dimension related to parents characteristics as a parenting stress source, there are no statistically significant differences between mean of rank for pre and post follow up tests for total psychological adjustment and its dimensions in low vision children, and perception of parenting stress and its affiliated dimensions for mothers.

Key words:

Psychological adjustment - Parenting stress - Low vision children - Construction playing.



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Name: Hanan Abu Almaref Ahmed

Faculty: Kindergarten Education

Dept.: Educational Sciences



Degree: MSc

Title of Thesis: The Researcher Presents Research Summary, Findings, Recommendations of Research in Light of the Results, and Finally the Suggested Researches that could be Complementary to this Research in other Fields.

Abstract:

The researcher presents research summary, findings, recommendations of research in light of the results, and finally the suggested researches that could be complementary to this research in other fields.

Research summary:

Introduction:

The problem of the current research stems from the importance of childhood stage, as the interest of kindergarten is actually an interest of the nation future as a whole; and children education is an important preparedness to face civilization challenges imposed by development. Education has been seen in our current world as an investment in human resources and the way to achieve individual and society development.

So there is no doubt that a parents' guide is considered a crucial issue in bringing up children; and as parents contribute to the success of the guide, so they represent special importance in this regard. They are the first social environment where children live and learn the first examples of different directions and behaviors. The relationship that exists between parents and children also plays an important role in forming their character as well as the personal and social adjustment. So the family is committed to make the child feel his social existence and increase his social contacts. The researcher notes how are scarce is the Arabic educational guidelines compared to foreign educational guidelines, so the problem is represented in our need for such guidelines, So:



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-
- 39 teachers in (Gamal Abd El Nasser experimental kindergarten, Al Orman model kindergarten, and El Safa kindergarten) have been surveyed. These kindergartens have been chosen to have variety of different levels as (experimental kindergarten, model kindergarten, and governmental kindergarten).
 - 60 parents (30 fathers, 30 mothers) have been surveyed regarding their need for the educational guide. The survey results demonstrated that both teachers and parents of children have agreed about their need to the educational guide for developing parents' skills in monitoring the activities programs in the kindergarten. So the research problem appears in the need of kindergarten children parents for a guide that helps them in monitoring their children in the integrated activities programs of kindergarten.

So, an answer is required to the following questions:

- 1- What are the skills that should be developed for monitoring the activities programs in kindergarten?
- 2- What are the contents (components) of the suggested guide for developing parents' skills for monitoring the activities programs in kindergarten?

What is the effectiveness of the suggested educational guide for developing parents' skills for monitoring the activities programs in kindergarten?



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اسم الباحث : داليا مصطفى عبد الرحمن مصطفى

الكلية : رياض الأطفال القسم العلمي : العلوم الأساسية

الدرجة العلمية : ماجستير

ملخص الدراسة:

ازداد الاهتمام بسنوات الطفولة ازدياداً ملحوظاً خاصة بعد أن أثبتت الدراسات بما لا يترك مجالاً للشك مدى تأثير وأهمية سنوات الطفل الأولى على بقية حياته. وتعد القصة أبرز أساليب التواصل مع الطفل وأكثرها فائدة ونجاحاً منذ أقدم العصور، لأنها تعد وعاء تنقل من خلاله الثقافات والقيم، والعادات والتقاليد، والطقوس والشعائر والتعاليم من جيل إلى الذي يليه. ولكن مع ازدياد التطور الذي يشهده العالم كل لحظة، تزداد الحاجة إلى حفظ التراث والتاريخ البشري، ونقله إلى الأجيال الجديدة. ومن هنا برز مفهوم التبسيط Simplification والذي يعد الغرض الرئيسي منه هو إطلاع الأجيال الصغيرة على تراث أجدادها، وتوجيه انتباههم إلى ما يزر به تاريخهم من درر ونفائس. مشكلة الدراسة:

يمكننا صياغة المشكلة في التساؤل التالي:

ما المعايير التي يمكن على ضوئها تبسيط قصص الكبار للطفل؟

وينبثق من هذا التساؤل عدد من التساؤلات الفرعية:

ما المعايير التي يجب توافرها في القصص المقدمة للطفل بشكل عام؟

ما المعايير الواجب توافرها في القصص التي تصلح للتبسيط؟

ما المعايير الشكلية التي ينبغي توافرها في إخراج القصة المبسطة؟

ما الخطوات التي يمكن اتباعها لإجراء عملية التبسيط؟

هدف الدراسة:

تهدف الدراسة الحالية إلى:

التوصل إلى معايير يتم على أساسها تبسيط قصص الكبار للأطفال مع مراعاة الخصائص الأدبية والفنية للنص

الأصلي من جهة، ومناسبة النص المبسط للطفل من جهة أخرى.

منهج الدراسة:

تتبع الدراسة الحالية المنهج الوصفي التحليلي المقارن، بهدف استنباط معايير يمكن على ضوئها تبسيط قصص

الكبار للأطفال.

عينة الدراسة:

اعتمدت الباحثة في هذه الدراسة على مجموعة من النصوص كعينة للدراسة وهي كما يلي:

مجموعة كبيرة من النصوص الأصلية والمبسطة لعدد من القصص العربية والأجنبية (١٠٠ قصة).



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قصة الملك لير لشكسبير.
قصة قنديل أم هاشم من تأليف يحيى حقي.
أدوات الدراسة:
استمارة استطلاع رأي عن تبسيط قصص الكبار للأطفال (من إعداد الباحثة).
استمارة تحليل مقارنة لمحتوى كل من النص الأصلي والنص المبسط للأطفال (من إعداد الباحثة).
بطاقة المعايير المقترحة لاختيار وتبسيط قصص الكبار الأدبية للأطفال (من إعداد الباحثة).
نتائج الدراسة:
توصلت الدراسة إلى اقتراح معايير لتبسيط قصص الكبار للأطفال وذلك من خلال أربعة محاور:
المعايير الواجب توافرها في القصص المقدمة للأطفال، وتشمل عشرة بنود.
معايير اختيار القصص التي تصلح للتبسيط وتشمل ١٢ بنداً.
المعايير الشكلية التي ينبغي توافرها في إخراج القصة المبسطة، ويشتمل على ١٤ بند.
خطوات إجراء التبسيط لعمل أدبي "قصة" مقدمة للكبار وتشمل:
أولاً: المضمون Content ويشمل ١٠ بنود
ثانياً: الأسلوب Style ويشتمل على ٧ بنود

الكلمات الدالة:

تبسيط القصص، معايير التبسيط، قصص الأطفال، إعادة رواية القصص، إعادة تقديم القصص



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Cairo University**



Name: Osama Abd El-Malek

Faculty : Specific Education

Dept.: Music Education

Degree: PhD



Title of Thesis: Eighth and Ninth Scales in The First Half of The Twentieth Century Music and its Benefits for the Students of the Faculties of Specific Education

Abstract:

At the middle of twenty' century the need to express the spirit of revolution appeared in the political situations in hard ways for away from the dreaming romantic whether in it subject or in its construction , as each composer worked on producing hard feelings to the his liner as a result of surprising counter sound combination or giving up regular tonal scale surprising which depend on major& minor scale as each composer had his own style, as some of them used some of them with a tonality with specific distance the composer explain it as he wish.

The problem of the research appears in discarding the importance of the developing of music which reached the new scales uses which didn't appear before.

The importance of the research declared in discussing two types of scales which are eight step scale and nine step scale and their construction by Alexander Tcherpainin and the usage of this scales.

This research came in four chapters , the first chapter concentrated on presenting the research which came in two fields first , its introduced the research and the problem and the gools , and the importance and the possibilities and the boarders, as it considered some of Alexander Tcherpainin compositions which contains the eight step scale & or the night step scale and the procedure of the research which was performed by the descriptive method (analyzing content) as it is the best method for the kind of the research and its tools of scores records of Tcherpainin compositions or the researcher composition Second:- presenting 9 of previous studies , five in Arabic, and four in English and what this researches come to.



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The second chapter: the theoretical boarder for the research as it presented the most important, styles of composing such impressionism , expressionism, subjectivism, new classicism nationalism, chance music, noise, music and presenting the twentieth century music elements as rhythm – melody – tonality – atonality- symmetric – range – harmony- {trades – chords by forth – and fifth – seconds& seventh – polycord – harmony in polyphonic style – harmony in serialism }

Forms: Forms structured on repeat – or development – or phrase- on counter paint- on form and variation– or orchestration& orchestral construction.

The third chapter divided into two fields First field:- introduction - birth & development of music scales – Tcherpainin music language elements for both eight step scale and nine step scale Second field: the researcher compositions.

Forth chapter: It consists of the conclusions and the recommendations and documents and the research summary.



اسم الباحث : إيمان رشدي أحمد علي

القسم العلمي : تربية فنية

الكلية : تربية نوعية

الدرجة العلمية : ماجستير

العنوان : تبادلية العلاقات الجمالية بين متغيرات الشاشة الحريرية والرسم المباشر كمدخل لإثراء القيم الفنية للمعلقات الطباعية.

الملخص :

اتجه البحث نحو الكشف عن المتغيرات التشكيلية الخاصة بالخامات والأدوات وطرق الأداء المستخدمة في كل من تقنيتي الشاشة الحريرية والرسم المباشر وما يرتبط بكل منهما من إمكانات تشكيلية متغيرة والإفادة من سبل تحقيق أكبر قدر من تبادلية العلاقات الجمالية بين تلك المتغيرات ومحاولة توظيفها في تنفيذ معلقات طباعية يتحقق فيها ثراء في القيم الفنية الناتجة عن الدمج والتوليف بين متغيرات كل من التقنيتين علي الأسطح الطباعية المختلفة الخصائص الشكلية والتركيبية.

وبجيب البحث في إطاره العام علي التساؤلات الآتية:

هل يمكن إثراء القيم الفنية للمعلقات الطباعية من خلال الدمج والتوليف بين متغيرات تقنيتي الطباعة بالشاشة الحريرية والرسم المباشر؟

هل يمكن طرح مداخل تجريبية جديدة تعتمد على تحقيق تبادلية العلاقات الجمالية بين متغيرات تقنيتي الشاشة الحريرية والرسم المباشر على الأسطح الطباعية ذات الخواص الشكلية والتركيبية المختلفة؟

والبحث مقسم إلي خمسة فصول موزعة علي النحو التالي:

الفصل الأول وعنوانه:

(التعريف بمشكلة البحث ومنهجه وإجراءاته)

ويشتمل علي خلفية البحث ومشكلته والفروض المرتبطة به وأهدافه وحدوده وأهميته ومنهجيته والمصطلحات والدراسات المرتبطة به.

الفصل الثاني وعنوانه:

(الشاشة الحريرية ومتغيراتها)

وقد تناول هذا الفصل تقنية الطباعة بالشاشة الحريرية والمتغيرات التشكيلية الخاصة بها والتي اشتملت علي متغيرات خاصة بالخامات, ومتغيرات خاصة بالأدوات, ومتغيرات خاصة بطرق الأداء, وقد احتوى كل قسم من هذه الأقسام علي عدد من المتغيرات الفرعية تناولتها الباحثة بالشرح والتحليل موضحة إيجابيات وسلبيات كل متغير وإمكاناته الجمالية والتشكيلية وما يمكن أن تنتجه تلك المتغيرات من تغير في نتائج العمل الفني المطبوع بتغير أشكالها وتغير أسلوب الأداء المستخدم في تطبيقها علي السطح الطباعي.

الفصل الثالث وعنوانه:



(الرسم المباشر ومتغيراته)

تناول هذا الفصل تقنية الرسم المباشر علي القماش بصفتها إحدى التقنيات الطباعية المستحدثة علي مجال طباعة المنسوجات والتي تتيح للفنان إمكانية التحرر شبه المطلق في استخدام ما يراه مناسباً من خامات وأدوات وطرق أداء متعددة لتحقيق أفكاره من خلال حس فني خاص. وقد أشتمل هذا الفصل علي حصر للمتغيرات الخاصة بالوسائط التشكيلية التقليدية وغير التقليدية والمستحدثة التي يمكن استخدامها في تقنية الرسم المباشر وما يرتبط بها من طرق أداء.

الفصل الرابع وعنوانه:

(وصف وتحليل للقيم الملمسية واللونية الناتجة عن تقنيتي الشاشة الحريرية والرسم المباشر ومحاور تبادلية العلاقات الجمالية الناشئة بين متغيرات كل من التقنيتين)

وقد أشتمل هذا الفصل علي جزئين تم تقسيمهم علي النحو التالي:

أولاً: وصف وتحليل للقيم الملمسية واللونية الناتجة عن تقنيتي الشاشة الحريرية والرسم المباشر.

ثانياً: وصف وتحليل للعلاقات الجمالية الناشئة بين متغيرات كل من التقنيتين.

وقد تناول الجزء الأول دراسة للتأثيرات الملمسية في تقنيتي الشاشة الحريرية والرسم المباشر والتي انقسمت إلي تأثيرات ملمسية حقيقية وإيهامية ثم دراسة للمعالجات اللونية في كل من التقنيتين كل علي حدة. أما الجزء الثاني من هذا الفصل فقد تناول تبادلية العلاقات الجمالية ودورها في بنية العمل الفني ثم عرض للمحاور التي يعتمد عليها في تحقيق تبادلية العلاقات الجمالية ومنها:

١- جماليات الخامات وأبعادها التشكيلية: وقد أشتمل علي الخواص الحسية والتركيبية للخامة ثم الخامات وطرق الأداء، ثم القيم الملمسية واللونية للخامة وأخيراً أنظمة العلاقات الجمالية بين القيم الملمسية واللونية في بنية العمل الفني.

٢- المفردات والعناصر التشكيلية المستخدمة: وقد أشتمل علي النقطة والخط والمساحة كمفردات تشكيلية في كل من التقنيتين وطرق تحقيقهم والعوامل المؤثرة علي هيئاتهم وأشكالهم الناتجة علي السطح الطباعي.

٣- التوليف بين الخامات المتوافقة شكلاً وتشكلاً: وقد أشتمل علي التوليف الطباعي ودوره في تحقيق تبادلية العلاقات الجمالية ثم عرض للمحاور الفكرية والتقنية التي يعتمد عليها التوليف في مجال طباعة المنسوجات.

٤- الشفافية بين العناصر والمفردات التشكيلية المستخدمة: وقد أشتمل علي وصف وتحليل للإمكانات الجمالية والتشكيلية للشفافية الناتجة عن كل من التقنيتين ومنها اللون والعمق وخفة الهيئة والشكل والأرضية والترابط الشكلي ورؤية التفاصيل المتوارية داخل العمل الفني المطبوع بكل من التقنيتين.

٥- الجمع بين المتضادات التشكيلية: وقد أشتمل علي وصف وتحليل للعلاقات الجمالية القائمة علي التضاد بين متغيرات الشاشة الحريرية والرسم المباشر ومنها تضاد المعتم والمضئ، تضاد المعتم والشفاف، تضاد الغائر والبارز، تضاد العضوي والهندسي، تضاد الأشكال الحرة والأشكال المقصودة.

الفصل الخامس وعنوانه:

(الممارسات التجريبية والتطبيقية للبحث ونتائج البحث وتوصياته)

وقد تضمن هذا الفصل الإطار الفكري للتجربة والذي أشتمل علي أهدافها وحدودها التشكيلية ثم الإطار التقني للتجربة والذي أشتمل علي ممارسات استكشافية لكل من تقنيتي الشاشة الحريرية والرسم المباشر كل علي حدة، ثم محاولة التوليف بينهم علي السطح الطباعي وذلك وفقاً لمجموعة من المداخل التجريبية المقترحة، وبعد ذلك تم إجراء ممارسات تطبيقية لتنفيذ مجموعة من العلاقات الطباعية التي تعتمد علي الدمج والتوليف بين متغيرات كل من التقنيتين بالشكل الذي يحقق أكبر قدر ممكن من تبادلية العلاقات الجمالية بين أجزاء ومساحات التصميم المطبوع، وذلك وفقاً لمجموعة من المداخل التجريبية التي تم استخلاصها من نتائج الممارسات الاستكشافية بالإضافة إلي النتائج المستخلصة من الدراسة النظرية والتحليلية للفصول السابقة، وأخيراً تم عرض النتائج والتوصيات المستخلصة من هذه الدراسة.

Appendix



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General Scientific Research Department
Information System Unit

Cairo University, University Administration Building,
Tharwat St., Giza, Egypt, Postal code: 12613.

Phone: +(202) 35704943 - 35676918 - 35675597

Fax: +(202) 37745324

Web site: <http://gsrs.cu.edu.eg>
www.cu.edu.eg

E-mail: resinfo@cu.edu.eg