



## The 4<sup>th</sup> UAEU Annual Undergraduate Student Research Conference 2018

April 17<sup>th</sup>, 2018

8:00 am – 5:00 pm

Venue: CIT Bulding (E1) – Auditorium



Organized By:

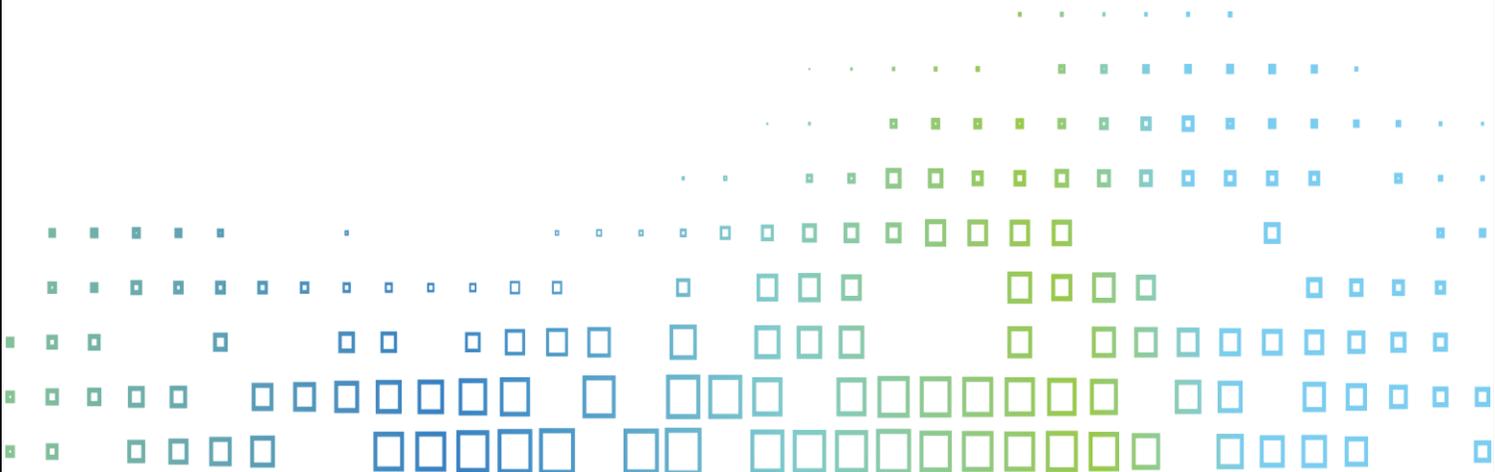
# SASP

برنامج النجاح الأكاديمي للطلبة  
Student Academic Success Program

Participating Institutions:

## UAEU





"We still do not know one thousandth of one percent of what nature has revealed to us"

**(Albert Einstein)**

The Student Academic Success Program of University College at the United Arab Emirates University welcomes you to the fourth annual Undergraduate Student Research Conference, to be held on 17<sup>th</sup>, April 2018.

The 2018 conference is open to all United Arab Emirates higher educational institutions and students from all disciplines.

The conference aspires to offer the following benefits to undergraduate students:

- The possibility to present at a research conference in a sheltered and friendly environment.
- The sharing of research with peers and students from all disciplines.
- A greater appreciation of the importance of a research community leading to richer interdisciplinary collaboration in the future.
- The development of both academic and 21<sup>st</sup> century skills at an early stage of a student's academic career.
- The provision of a stepping stone for the UAE higher education students to gain access to a wider global research community in the future.

## Message from the Conference Organizers

As part of our quest to promote sustainability and ethical practice, our conference task this year is to reduce our use of non-recyclable materials during the event and to use recycled or up cycled materials wherever possible. Our reason for this is to keep our planet sustainable, so that our future generations, through research, collaboration and the distribution of knowledge, can begin to understand more than the one thousandth of one percent that we currently know.

**Paul Morley, Conference Coordinator**

**Athba Al Sabousi, Conference Administrative Secretary**

**Hiba Ibrahim, Conference Administration Officer**

# Conference Program

8:00 AM

- Registration Opens

9:30 AM

- Conference Opens

9:40 AM

- National Anthem
- MC Introduction
- Conference Director Speech

10:00-10:15 AM

- Coffee Break and Poster Viewing

10:15-11:15 AM

- Session 1

11:30-12:25 PM

- Brunch and Poster Viewing

12:30-1:30 PM

- Session 2

2:00-3:00 PM

- Session 3

3:30-4:30 PM

- Session 4

4:30-5:00 PM

- Coffee Break, Poster Viewing and Networking

05:00 PM

- Conference Ends

# Oral Sessions

10:15 – 11:15 am <b>Session 1</b>		
Location	Institution	Title
Auditorium	UAEU College of Science	Modeling smoking habits among the UAE population
	UAEU College of Business	Perceptions of Higher Education Tuition Fees: A case study of UAEU Students
	UAEU College of Education	Aggressive Behavior on Children at Elementary Schools in the UAE, its Causes, Impacts, and Solutions
E1 - 1036	UAEU College of Business	Assessing the Challenges and Opportunities Facing Entrepreneurs in the UAE
	UAEU College of Science	The ecological impacts of climate change in hot regions: can the Nile Tilapia and the Sabaki Tilapia adapt to rising temperatures?
	UAEU College of Medicine	Prevalence of Endometriosis in UAE
E1 - 1038	UAEU College of Business	Is eco-innovation the new path to economic growth in the UAE and other emerging countries?
	UAEU College of IT	Fuzzy Logic based Real Time dashboard for Malicious Port Scanning Detection
	UAEU College of Science	Quantification of Desmodesmus in Zakher lake
E1 - 1028	UAEU College of IT	Efficient Health monitoring through supervised grocery shopping based augmented reality mobile application
	UAEU College of Business	The Effects of Social Networking Sites on the Academic Performance of Students in UAEU
	UAEU College of Medicine	Neuronal Basis of type 1 Diabetes Mellitus Skeletal Deficiency
<b>(11:30 am – 12:25 pm) Brunch &amp; Poster Viewing</b>		
12:30 – 1:30 pm <b>Session 2</b>		
Auditorium	University OF Jazeera College of Law	جريمة الإرهاب الإلكتروني
	University OF Jazeera College of Law	عوارض الخصومة المدنية، وفقاً لقانون الإجراءات المدنية الإماراتي لسنة 1992 م والمعدل بالقانون
	University OF Jazeera College of Law	الحبس الاحتياطي
E1 - 1036	HCT College of Business	Islamic Finance Greening the Economy
	Murdoch University College of Business	Speculation on social media: Influence on stock market
	Murdoch University	P&G: Significance of sustainability

	College of Business	
E1 - 1038	UAEU College of IT	Game Simulation of Smart Taxis
	Abu Dhabi University College of Arts & Social Sciences	Error Analysis: Difficulties Faced by the Pashtuns while Learning English Inflections
	UAEU College of IT	Automatic Generation of Interactive Stories
E1 - 1028	UAEU College of Engineering	Effects of Steel Fiber on the mechanical properties of geopolymer concrete
	University of Sharjah College of Science	Microwave Synthesis of Poly (VinylAcetate) and its Thermal Properties
	UAEU College of Medicine	Cloning and preliminary analysis of the role of a novel long non-coding RNA in development and its contribution to metabolic diseases using a rodent model system
2:00 – 3:00 pm	<b>Session 3</b>	
Auditorium	UAEU College of Medicine	Cardiac Anatomy and Geometry in Patients with Obstructive Sleep Apnea: Emphasis on Remodeling
	UAEU College of Food & Agriculture	Ability of the isolated probiotic to produce a conjugated linolenic acid (CLN)
	UAEU College of Medicine	Self-reported bullying among school students in the UAE: the 2010 Global School-Based Student Health Survey
E1 - 1036	UAEU College of Science	Using soil bacteria to improve phytoremediation of crude oil- polluted soils in the UAE
	UAEU College of Medicine	Evaluating the effect of flavonoids on cell proliferation and STAT3 activity in human breast cancer cells
E1 - 1038	UAEU College of Science	Ostracoda studies of some Oligo-Miocene outcrops, Abu Dhabi Emirate, United Arab Emirates
	UAEU College of Engineering	High Speed Photographing of Flame Propagation of Biofuels in a Combustion Bomb
	UAEU College of Science	Size-dependent magnetic anisotropy of PEG coated Fe <sub>3</sub> O <sub>4</sub> nanoparticles; comparing two magnetization methods
E1 - 1028	UAEU College of Engineering	Using Supercritical CO <sub>2</sub> for Simultaneous Microalgae Oil Extraction- Reaction for Biodiesel Production
	UAEU College of Humanities & Social Sciences	Moral Ambiguity in Video Game Narratives
	UAEU College of Food & Agriculture	UAE Consumers Preferences and Attitudes toward Food Safety Risk: A Survey Study

3:30-4:30 pm	<b>Session 4</b>	
Auditorium	Abu Dhabi Polytechnic College of Engineering	Colonization on Mars: An Experimental Analysis about Chemotherapy as Key to Survive on Mars
	UAEU College of Engineering	Biomedical Device for Blood Based Early Detection of Vascular Disease
	UAEU College of Business	Motivation and Habits of Recreational Reading of Students at Public Universities in the UAE: The Case of UAE University
E1 - 1036	UAEU College of Business	ERPs, SEMs and Management Accounting practices in UAE Organizations
	UAEU College of Science	Estimating Strength Properties of Upper Eocene Carbonate Rocks
	UAEU College of Food & Agriculture	Can Food Retail Stores in Al Ain Utilize Online Marketing Platforms in Retailing?
E1 - 1038	UAEU College of Engineering	Sustainable Development in the UAE Through Cement-Free Geopolymer Concrete
	UAEU College of Science	The Fractional Laguerre Equation of Conformable Type: Series Solutions and Fractional Laguerre Function
	UAEU College of IT	Evaluation of Routing protocol in Nanonetwork
<b>(4:30 – 5:00 pm ) Coffee Break, Poster Viewing &amp; Networking</b>		
5:00 pm	End of the Conference	

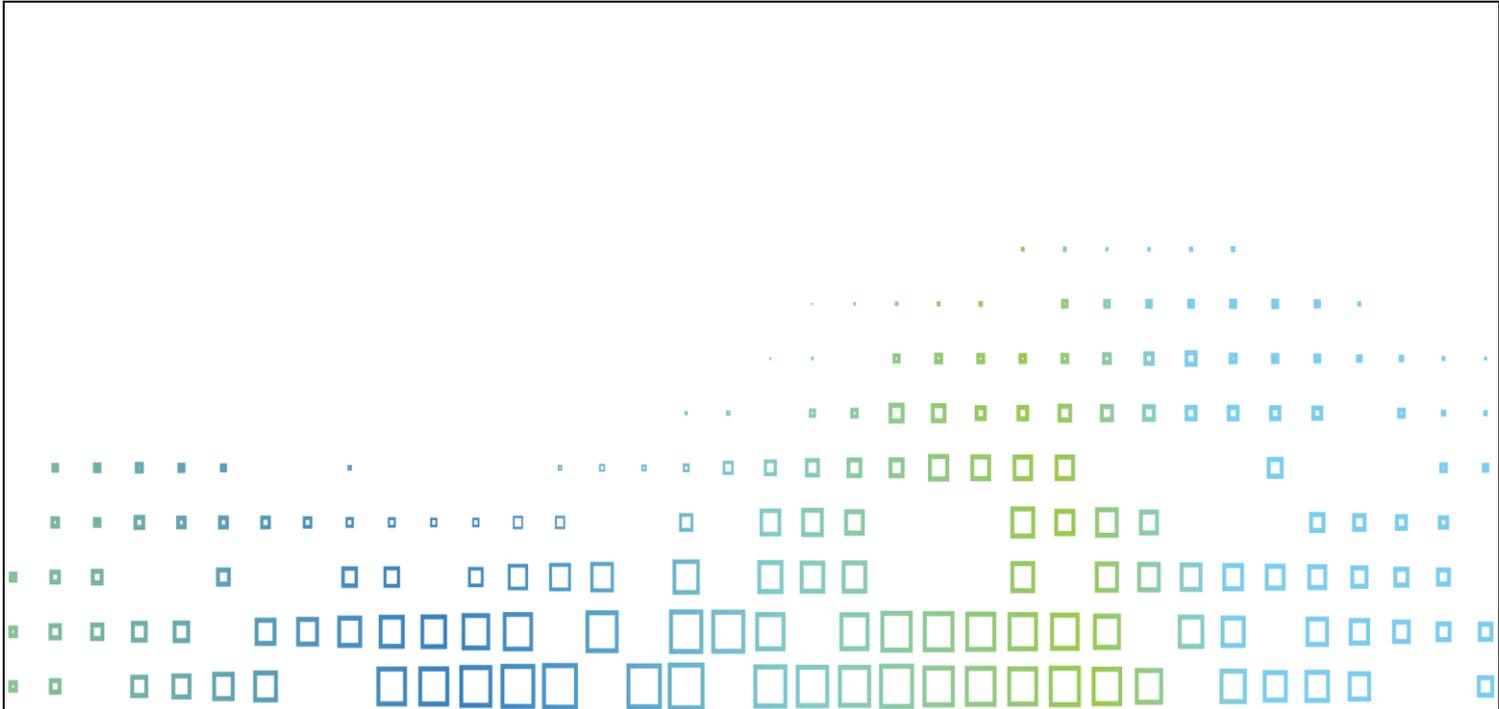
# Poster Viewing

Ref. No#	Institution	Title
1	UAEU	Effect of Polyphenols from Date Seeds on Adipocyte Differentiation
2	UAEU	Design and build a two-stage epicyclic gearbox
3	UAEU	Alturjoman Alsagheer, Basic Language App for kids
4	UAEU	Quantification of polyphenols in Arabic dishes and average daily consumption
5	UAEU	Predicting Missing Links in Knowledge Graph
6	UAEU	The mechanical properties of bones from Wistar rat
7	UAEU	Newly discovered Topological Insulator Sr <sub>3</sub> SnO, Optical and Electronic properties
8	UAEU	Robotic Therapy for Developing Social Skills in Kids with Autism
9	UAEU	Synthesis and Characterization of Lead Halide Perovskite for Solar Cell Applications
10	UAEU	Online Monitoring for Early Detection of Water Toxicity
11	UAEU	Simulation Models for Economical Design of Regions of Discontinuities in Concrete
12	UAEU	Time Activity budgets, gular fluttering and responses to heat stress in Socotra Cormorants
13	UAEU	Time activity patterns of Arabian red foxes ( <i>Vulpes vulpes arabica</i> ) on Siniya Island, UAE
14	UAEU	Identification of saturated fatty acid regulated lncRNAs during in vitro human embryonic n
15	UAEU	Associativity of genetic algebras corresponding to triple stochastic matrices.
16	UAEU	Effects and Solutions for Vitamin D deficiency in the Emirate Population
17	UAEU	Design & Implementation of a Platform for the processing of urban data streams
18	UAEU	Automated Threats Alerting System
19	UAEU	Social Media Analytics for Event Detection in Smart Cities
20	UAEU	Financial Development and Economic Growth: the Gulf Cooperation Countries (GCC) case
21	UAEU	Happiness Measures in UAEs Stock Exchange Listed Organizations
22	UAEU	A novel and innovative hair test to determine glucocorticoid levels in racing camels
23	UAEU	The impact of grading leniency and discrepancy on student evaluations of teaching
24	UAEU	Synthesis and characterization of perovskite materials for solar cells applications
25	UAEU	SDN_Assisted Approach for Secure Health Care Monitoring
26	UAEU	Impact of Uncertainty Shocks on Stock Markets
27	UAEU	Student evaluation of teaching at the UAEU - the students' perspective
28	UAEU	Short and Medium Term Electric Load Forecasting Using Deep Learning:
29	UAEU	ANALYSIS OF MACHINE LEARNING USAGE FOR BUILDING ENERGY CONSUMPTION: THE BEST PRACTICE
30	UAEU	Blockchain Performance Analysis Deployment in the UAEU Campus
31	UAEU	التفريق بين الزوجين للضرر في قانون الأحوال الشخصية الإماراتي
32	UOJ	الشركات ذات التنظيم الخاص في القانون التجاري لدولة الإمارات العربية شركة الشخص الواحد
33	UAEU	Effect of different equipment usages on acute and chronic responses for PE students in UAEU
34	AD Poly	Reusability of abandoned offshore platforms for habitation and tourism
35	AD Poly	Use of oil drilling technology to extract water from spaces near earth asteroids
36	AD Poly	Water Sample Return Payload

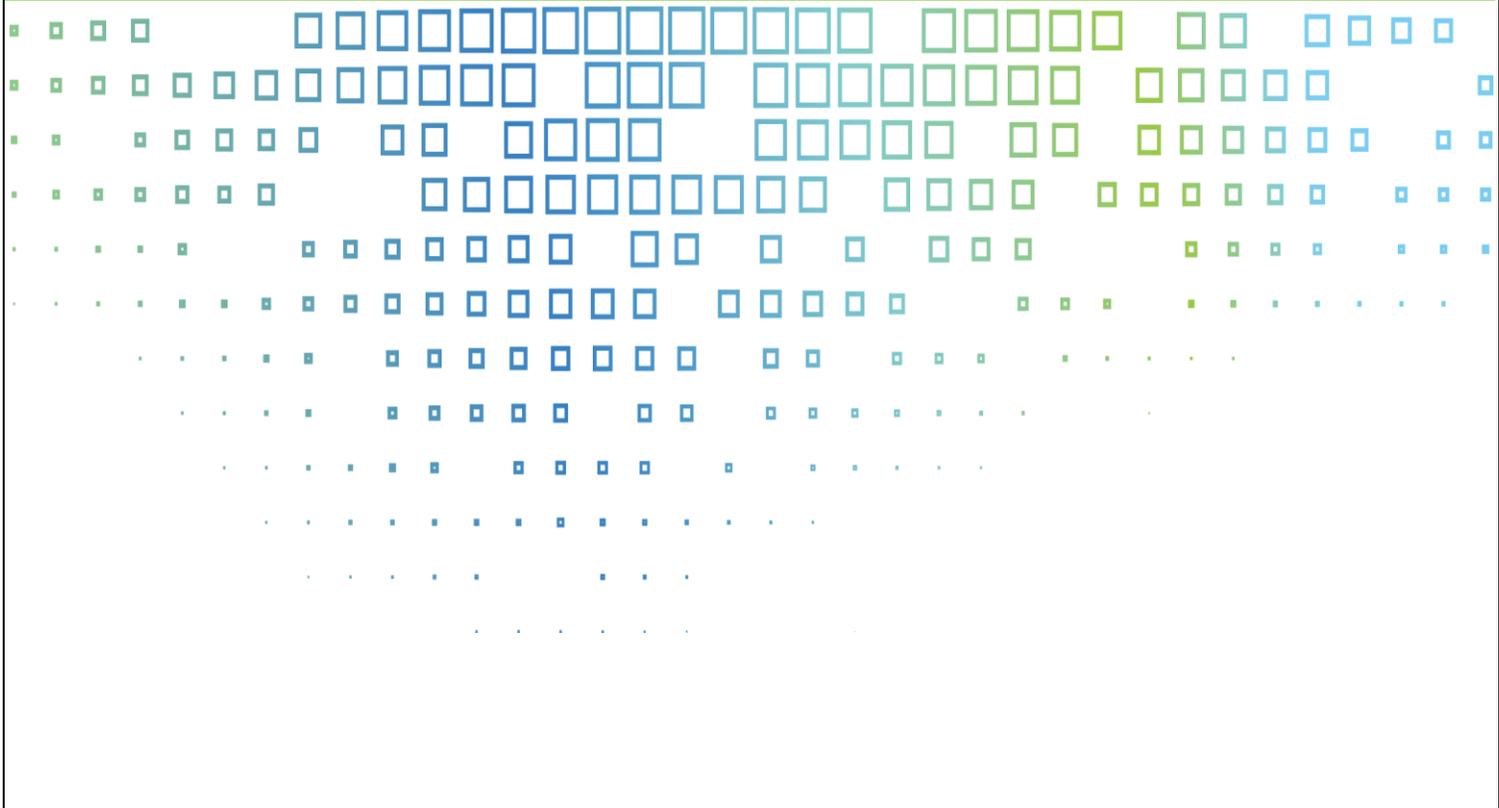
37	UAEU	Subsurface Structural Mapping Using Gravity Data of Al-Ain Region, Abu Dhabi Emirate, UAE
38	UAEU	Factors determining the job seeking attitudes of the UAE University future graduates toward
39	UAEU	Systematic Review & Meta-analysis of Major Depression & Suicidal Ideation among University
40	UAEU	Effect of Dehydration On The Arabian Camels Brain
41	UAEU	Production of Activated Carbon from Date Seeds

## Information Literacy (GEIL101) Poster Presentations

Ref. No#	Research Title
43	"How did UAE secondary schools' teachers activate technology in their teaching strategies in (2010-2017)"?
44	Smart car steering wheel project
45	Prevention of Childhood Obesity Using Video Games
46	Education For Visually Impaired - " Challenges in the learning environment "
47	Magnetic Levitation
48	Awareness of Healthy Food Options for Preventing Diabetes at UAE University Food Outlets
49	Investigation of the Effect of manufacturing on Pollution in the UAE and ways to resolve t
50	Efficient hydrogen production using solar and nuclear energy, as alternative for Abu Dhabi
51	Impact of creativity and innovation in UAE Educational System
52	What are the effects of chemical pollutants on the environment in UAE?
53	People of determination in UAEU
54	The Ugly Side of Beauty: Animal Testing for Cosmetic Products
55	The outcomes of the Space Industry on the future UAE economy.



# USRC 2018 Abstracts



# Oral Presentations

## **Session 1:**

### Modeling smoking habits among the UAE population

**Institution:** United Arab Emirates University

**College:** College of Science

**Supervisor:** Dr. Abdessamad Tridane

**Presenters:** Hussain Ali Jaffer Alasmawi

#### Abstract:

There is an increasing trend of the smoking habits in the UAE population, particularly among the male youth. There is a concern of the effects on the public health of the population and the overall productivity of the UAE society. In this work, we aim to develop a mathematical model that investigates the impact of the older smokers on the potential young smokers. Our goal is to identify the major parameters that lead to addiction, craving and self-control among the smokers. To reduce the burden of the smoking on public health, we introduce the education campaign, in an agent based model, as a control measure that would help the public health authorities to increase the awareness of the dangers of smoking.

### Perceptions of Higher Education Tuition Fees: A case study of UAEU

**Institution:** United Arab Emirates University

**College:** College of Business

**Supervisor:** Dr. Emilie Rutledge

**Presenters:** Maryam Yaqoob

Alia Almansoori

Samaha Al Omer

#### Abstract:

Education has been seen as a pillar for development globally and a lot of countries offer free education to enhance their human capital. However, the fiscal pressure on governments around the world of providing free higher education to those who demand it has led to many countries introducing fees of some sort. For example, research has shown that in England, there was a substantial negative effect on student enrolment and demand for higher education (Dearden et al, 2011). Moreover, spending on education is determined in part by household expenditure and the educational level of the household head.

The UAE has been offering free higher education to its citizens to build a knowledge economy and increase their human capital accumulation. This paper aims to address the following research question: Should the UAE continue to offer free higher education or not? Whilst the UAE has no stated intention of limiting free higher education at present, nevertheless it may wish to consider the introduction of some type of fees system at some point in the future. A survey was conducted by the researchers at UAEU which asked students how their parents would respond to the introduction of different types of fees and whether it would affect their decision to study. We find that the effect on human capital accumulation to be ambiguous. Whilst the effect of introducing tuition fees would decrease university enrolment of both locals and international students, and thus would have a negative effect on the

future numbers of graduates, the average quality of students enrolled at university would likely rise because of some of the cost of investing in higher education would be borne by the individual and this might incentivize a more productive and hardworking cohort of students.

### **Aggressive Behavior on Children at Elementary Schools in the UAE, its Causes, Impacts, and Solutions**

**Institution:** United Arab Emirates University

**College:** College of Education

**Supervisor:** Dr. Rashid Al.Riyami

**Presenters:** Shahezeen Mansoor Shaikh

Makkia Abdel Hameed Mohammed

#### **Abstract:**

The issue of aggression is a severe and widespread phenomenon throughout the world. In many countries, and especially in the United Arab Emirates (UAE), we hear many aggression stories that have happened in schools, especially in elementary schools. As we know, the child is an imitator in nature, and he observes everything that happens in front of him. Therefore, the child could face many attitudes that lead him to be more aggressive in his behavior. As Duman and Margolin mention, children's observations of their parents in personal contexts, mainly their parents' aggression, can impact the children's own social problem solving skills which affect their peer relations (2007, n. p.). This study explored the impacts of aggression on children's behaviors, and what the attitudes towards aggression were.

Parents and teachers between the ages of 30 to 50 from different nationalities and cultural backgrounds and from different regions answered a survey about their awareness of the factors that impact the children's behavior to be more aggressive. The analysis of the data collected from both teachers and parents indicated that media and the family environment have a great impact on children's behavior.

### **Assessing the Challenges and Opportunities Facing Entrepreneurs in the UAE**

**Institution:** United Arab Emirates University

**College:** College of Business

**Supervisor:** Dr. Emilie Rutledge

**Presenters:** Mouza Abdulla Alneyadi

Huda Khalid Al Qanaei

Maitha Mohammad Qemzi

#### **Abstract:**

The UAE's interest in including innovation and entrepreneurship in its learning curricula has emerged from the country's goal to increase its competitiveness worldwide. On top of this is the recognition that entrepreneurs promote local innovation and productivity, add a significant value to the economy, help generate new wealth, provide new jobs and ultimately improve standards of living. As the UAE is aspiring to diversify its economy and cutback its reliance on oil, the need for entrepreneurs' contributions is growing. The main objective of this research is to investigate the challenges facing entrepreneurs in the UAE, to acknowledge the difficulties and the motives that drive entrepreneurs to produce in a fast-growing market, along with recognizing the government's role in providing a feasible environment for small and growing businesses. This research investigates these issues by way of interviewing local entrepreneurs.

The goal of the structured interviews was to gather information about the challenges and opportunities that

face entrepreneurs in starting their businesses, and provide recommendations to entrepreneurs in the UAE. In addition, it explores the role of the government in motivating and supporting those entrepreneurs. This research finds that the government had a huge role in encouraging entrepreneurs and preparing a friendly business environment for starting up a business. Social media also has a huge role behind the rise of so many entrepreneurs, particularly among women since it is easier to work from home.

Challenges that face start up entrepreneurs include difficulty to find sufficient capital and facing obstacles when starting the business. It is hoped that this paper will provide a helpful resource for those aspiring to start a small business, by giving them an idea on what to expect and an insight of the business life of an entrepreneur and make policy recommendations on how to facilitate Emirati entrepreneurship.

### **The ecological impacts of climate change in hot regions: can the Nile Tilapia and the Sabaki Tilapia adapt to rising temperatures?**

**Institution:** United Arab Emirates University

**College:** College of Science

**Supervisor:** Dr. David L. Thomson

**Presenters:** Manhal Musa Abdulla

Aseel Samir Abdelkarim

Areej Mustafa Jaradat

#### **Abstract:**

In this project, we looked at whether two African species of Tilapia would be able to adapt to climate change. The ability to cope with rising temperatures depends not only on the amount by which temperatures are rising, but also on whether a species has already gone beyond its thermal optimum, and on whether these optima are fixed or flexible.

We studied these issues in the Nile Tilapia (*Oreochromis niloticus*) and the Sabaki Tilapia (*Oreochromis spilurus*); constructing thermal performance curves by observing breathing rates over a range of temperatures. For both species, the optima varied between individuals, ranging from 27°C to 33°C in the Sabaki Tilapia, and all the way from 21°C to 35°C in the Nile Tilapia. For both species, there are individuals within the population for whom the native temperatures are already too hot, particularly in summer, but both populations also contain individuals for whom the current temperatures are still too cold. While rising temperatures may have negative effects, pushing these species above the optima of many individuals, the populations as a whole would appear to have some resilience because even in these hot regions there are some individuals which will be able to perform better as temperatures rise.

### **Prevalence of Endometriosis in UAE**

**Institution:** United Arab Emirates University

**College:** College of Medicine

**Supervisor:** Dr. Moamer Al Jefout

**Presenters:** Alia Abdulrahman Hareb Alhareb

#### **Abstract:**

#### **Background:**

The true prevalence and risk factors for endometriosis among women in UAE are unknown. Objectives: To

estimate the prevalence of endometriosis among women in UAE aged 18 to 55 years, risk factors and related health problems.

**Material and methods:**

A questionnaire-based cross-sectional study. Information about reproductive events and gynecological problems including endometriosis was obtained.

**Results:**

Among participants (n= 3572) confirmed endometriosis diagnosis was reported by 55 women. Hence, the estimated prevalence of endometriosis was 1.5 % (55/3572). Endometriosis was more prevalent among age 20-29 years (with endometriosis - 59.6% vs 38.2% in control group, P value <0.0001). Endometriosis was more prevalent among those with cycle irregularity and long menses ( $\geq 7$  days) (41.8% & 27.3 % vs 30.7% & 18.8%) respectively. Moreover, endometriosis was more prevalent among divorced women (26 (0.7%) vs 3 (5.5%)) in control. Women with endometriosis were found to have more severe dysmenorrhea (49.1% (27) vs 17.6% (618)), infertility (12.7% (7) vs 0.9% (32), chronic pelvic pain (18.2% (10)) and dysuria (18.2% (10)) vs (2.5% (88) and 3.1% (108) respectively),  $p < 0.001$ . Women with endometriosis more frequently experience abnormal uterine bleeding (20% (11) vs 4.3% (153),  $p < 0.0001$ ), uterine fibroids (10.9% (6) vs 0.7% (24),  $p < 0.0001$ ), and ovarian cysts (38.2% (21) vs 7.2% (252),  $p < 0.0001$ ). Ovarian cysts surgery was also strongly associated with endometriosis diagnosis (21.8% (12) vs 0.7% (23),  $p < 0.0001$ ).

**Conclusion:**

In our study, the estimate prevalence of endometriosis is 1.5 %. Irregular and prolonged periods, dysmenorrhea, chronic pelvic pain, dysuria and infertility are associated with endometriosis.

**Is eco-innovation the new path to economic growth in the UAE and other emerging countries**

**Institution:** United Arab Emirates University

**College:** College of Business

**Supervisor:** Dr. Amany Elanshasy

**Presenters:** Afra Ali Rashed Al Nuaimi

**Abstract:**

The paper has its theoretical foundations in the “new growth theory”. Unlike in the classical growth model, the new growth theory predicts that economic growth can ever last by investing in innovation and human capital. With the growing world’s environmental concerns, the paradigm shifted to the “green” growth which focuses on ways to drive sustainable growth in a country. Natural resources are scarce and some are nonrenewable, and hence resource-rich countries need to have alternative ways to continuously promote its growth. UAE is one of the countries that recently focused on innovation to keep up with the new challenges in oil markets and to adjust to new trends to promote UAE's quest for sustainable diversified development. One of UAE’s engagements in eco-innovations is its investment in Masdar City and Institute to further innovations and R&D in solar energy.

**Methodology:**

I will use panel data fixed effects regression to test the following hypothesis; H0: innovation in green technology has a positive impact on economic growth.

### Model:

Economic Growth =  $\beta_1 + \beta_2 \text{ EcoInnovation} + \beta_3 \%R\&D \text{ expenditure} + \beta_4 \text{ employment} + \beta_5 \text{ gross fixed capital investment} + \beta_6 \text{ educational attainment} + e$   
Data: I collected data on real GDP percapita growth as the dependent variable and Eco innovation index as the main independent variable and other independent supporting variables (as postulated by the new growth theory). The collected data covers 26 different EU countries from 2010 to 2016 and is obtained from the World bank and Eurostat websites.

### Expected results & Recommendation:

Based on the preliminary data collected, I expect countries with higher R&D expenditure and eco-innovation index to have higher economic growth, after controlling for education, physical capital investments and employment. The findings will have important policy implications for the UAE and other emerging countries: the path to deriving continuous economic growth and having sustainable development requires transforming their savings from the natural resource (the oil receipts) to a continuous innovation in green technology and green business.

### Fuzzy Logic based Real Time Dashboard for Malicious Port Scanning Detection

**Institution:** United Arab Emirates University

**College:** College of IT

**Supervisor:** Dr. Zouheir Trabelsi

**Presenters:** Maitha Salem Alzeyoudi

Wedaad Saeed Al Dhanhani

Aisha Hasan Alshehhi

### Abstract:

Port scanning is one of the most common network attacks used usually to gather information about open ports on target hosts. Practically, ports represent the information exchange interfaces of different services within a host. Port scanning allows attackers to gather information about target hosts by trying to identify instantly open ports, which correspond to specific services, such as HTTP, DNS, and email.

Intrusion Detection Systems (IDSs) monitor networks and systems for malicious activities and policy violations, including mainly Denial of Services (DoS) attacks and unauthorized information gathering activities. However, current IDSs are not enough sophisticated to detect and monitor efficiently port scanning activities. In this paper, we modeled a port scanning detection platform, based on fuzzy logic controller, which uses fuzzy rules base.

The proposed platform enables network administrators and cyber security specialists to follow in real time the network traffic behavior in order to quickly and efficiently identify port scanning activities. Experimentations showed the efficiency of the proposed fuzzy logic based port scanning detection system compared to Snort and the related IDS systems.

### Quantification of Desmodesmus in Zakher lake

**Institution:** United Arab Emirates University

**College:** College of Science

**Supervisor:** Dr. Sabir bin Muzaffar

**Presenters:** Shaimaa Darweish AlHashmi

**Abstract:**

*Desmodesmus* were originally genera under the genus *Senedesmus*. But after years, they were separated into a genus of their own. As a result of this separation, only well characterized species were transferred to this genus. Each aquatic environment has its own different populations of phytoplanktons.

A total of ten samples were taken from Zakher lake (Al Ain), to undergo a quantification process and the results showed that *Desmodesmus* were highly abundant in this lake. In addition to that, the statistical analysis showed that its numbers were higher in comparison to the predator zooplankton species.

**Efficient Health monitoring through supervised grocery shopping based augmented reality mobile application**

**Institution:** United Arab Emirates University

**College:** College of IT

**Supervisor:** Dr. Mohamed Adel Serhani

**Presenters:** Alyazia Saeed Alkhyeli

Athra Abdulla Humaid

Mariam Saeed Al Mansoori

**Abstract:**

Chronic diseases such as obesity, diabetes, and cholesterol are generally life-long diseases, and are usually of slow progression. The most important keys to prevent these diseases are a good balanced nutrition and a great healthy life, in addition to healthy diets and physical activities. It is important in all life stages to ensure and balance the energy intake with required physical activities to manage a healthy condition. On the other hand, there are many factors that lead to chronic diseases such as an inactive lifestyle, unhealthy diet, high cholesterol, unbalanced energy intake leads to overweight and obesity. The energy consumption amount in relation to physical activities and food quality are keys related to chronic diseases.

Therefore, we propose an approach to complement the lifestyle and physical activities while conducting a proactive monitoring and control of patient's food intake through customized, entertained, informative guidance and recommendations that fit their health profile. Different data mining approaches were used to classify and validate different health profiles. We also developed two novel algorithms, the first one supports matching health profile to product's nutrition and provides automated recommendations and personalized advice. However, the second algorithm matches the product nutrition to the portion that should be consumed of the product. To support our solution approach we developed an augmented reality shopping application, to help monitor users' health diet and their daily activity according to their registered profiles.

The application will warn the user if the scanned product is not suitable for his health given his/her classified profile. This will prevent shoppers to purchase unhealthy products and suggest only those that match his/her health profile. We evaluated our monitoring approach on different health profiles and the results we have obtained proves that our guided proactive health monitoring and recommendations lead to a better controlled health.

**The Effects of Social Networking Sites on the Academic Performance of Students in UAEU**

**Institution:** United Arab Emirates University

**College:** College of Business

**Supervisor:** Dr. Emilie Rutledge

**Presenters:** khazina rashead Alshamisi      Shama Musabah Al Kaabi      Maitha Mohammed Reshaan

Fatima Rashed Al Ameri

**Abstract:**

The addictive nature of social networking tools is a collective contemporary problem affecting the whole of society and many scholars have commented on this critical issue. Also, it has chronic effects such as the impact on linguistic and social behavior of students' learning. One of the biggest influences is on education such as in secondary school and university or college institutions. This research explores how social networking such as Facebook, YouTube, Instagram and Snapchat affect student learning. A survey instrument was created and distributed to a sample of 40 students in the United Arab Emirates University, to examine how social networking affects student learning.

The survey includes different kind of questions such as open ended and closed ended questions the results of which can facilitate our understanding of how students behave when using these social networks and whether it affects them positively or negatively. Research into the effects of social networking in Oman by Mehmood and Taswir (2013) formed the basis for the survey instrument. This research concludes that whilst there can be some educational benefits from social networking nevertheless a substantial portion of student performance in learning is negatively influenced and relatively few students are benefiting from social networking tools and using it in a positive way to enhance their academic performance.

**Neuronal Basis of type 1 Diabetes Mellitus Skeletal Deficiency**

**Institution:** United Arab Emirates University

**College:** College of Medicine

**Supervisor:** Dr. Sahar Mohsin

**Presenters:** Maryam Obaid Ibrahim

**Abstract:**

Diabetes Mellitus (DM) is the most common chronic metabolic disease, which is on rise globally. Previous studies have addressed the question of how DM induces osteoporosis, however the mechanism is still unknown. Bones undergo continuous remodeling throughout life. Bone remodeling is the coupling of osteoblastic bone resorption and osteoblastic bone formation.

Osteoporosis is a result of bone loss that occurs by uncoupled remodeling. Bone remodeling is controlled by numerous genetic, hormonal and neurogenic mechanisms. Regulation of the neurological system plays a vital role in many physiological and pathological processes in bone remodeling. A number of neuropeptides, such as substance P (SP), calcitonin gene-related peptide (CGRP), vasoactive intestinal peptide (VIP), neuropeptide Y (NPY) and tyrosine hydroxylase (TH) synthesized in sensory neurons and sympathetic nerves are implicated in the control of bone remodeling. However, data available are still limited. Neuropathy is a common complication of DM and studies have shown that these patients are at an increased risk of osteoporosis, arthritis and fragility fractures.

The aim of this study is to perform a comprehensive analysis of the sensory and sympathetic innervation in long bones of rats and compare it with diabetic bones. We investigated the distribution of sensory and sympathetic nerve fibers in bones of streptozotocin - induced model of type I diabetic male rats using silver staining, immunohistochemistry and fluorescence microscopy techniques on decalcified bone sections. We quantified the

expression of neuropeptides in bones by using ELISA (enzyme-linked immunosorbent assay) technique. Results of our study showed decrease in the number of both sensory and autonomic nerve fibers in type I diabetic osteopathy. Thus, neuropeptides are involved in the pathogenesis of skeletal abnormalities in type I DM.

## Session 2

### جريمة الإرهاب الإلكتروني

**Institution:** University of Jazeera

**College:** College of Law

**Supervisor:** -

**Presenters:** سالم راشد الطنجي/Salem Rashed Salem Alteneiji

### ملخص البحث:

قد زاد خطر الإرهاب في السنوات الأخيرة وما شهده العالم من حوادث إرهابية يؤكد تمكنه من كسر الحدود بين الدول والقارات، ولذلك بدأ العالم كله في الانتباه بحذر للتنظيمات الإرهابية وبخاصة الدول التي شهدت حوادث إرهابية على أرض الواقع، وفي سبيل مكافحة الإرهاب فرضت دول العالم الكثير من الإجراءات والقوانين التي من شأنها إيقاف تلك التنظيمات، ورغم كل الجهود المبذولة لمكافحة الإرهاب إلا أن الإرهاب الإلكتروني أصبح أكثر جذباً وتطويعاً للشباب وضمهم لتلك التنظيمات، وأصبح من أكثر الوسائل انتشاراً لغسل الأموال من خلال تلك التنظيمات. فجريمة الإرهاب الإلكتروني هي الجريمة التي ترتكب باستخدام تكنولوجيا المعلومات ووسائل الاتصال وبلاستعانة بتقنيات الحاسب الآلي بهدف التأثير على نظام الحاسب الآلي أو وظائفه، وهي استخدام الدول أو التنظيمات أو الأفراد للوسائل الإلكترونية في الاعتداء أو التهديد المادي أو المعنوي للإنسان على نفسه أو دينه أو عرضه أو عقله أو ماله، بغير حق وبطريقة غير مشروعة تنشر الفوضى والفساد في الأرض. ومن الأسباب العامة لظاهرة الإرهاب الإلكتروني التشنج والغلو في الدين، الظروف السياسية، أسباب اقتصادية، والفراغ الفكري، والفهم الخاطى للدين.

والركن المادي لجريمة الإرهاب الإلكتروني هو: الترويع والتهديد الإلكتروني، نشر وتبادل المعلومات الإرهابية على الشبكة المعلوماتية، والقيام بإنشاء المواقع الإرهابية الإلكترونية، العمل على تدمير المواقع الإلكترونية والبيانات والنظم المعلوماتية .

والركن المعنوي لجريمة الإرهاب الإلكتروني هو العلم والإرادة، وحتى يحدث القصد الجنائي لا بد أن يكون الفاعل عالماً بكافة العناصر الرئيسية لقيام الجريمة وأن تنتج إرادته لارتكاب جريمته .

أولى المشرع الإماراتي اهتماماً كبيراً لإعداد منظومة قانونية يمكن من خلالها مكافحة المنظمات الإرهابية وجميع روافدها، وأصدر في هذا الإطار القانون الاتحادي رقم 1 لعام 2004 والصادر يوم 28 يوليو 2004 والخاص بمكافحة الأعمال الإرهابية .

وقد أصدرت الإمارات الكثير من القوانين ووضعت الكثير من اللوائح للعمل على تضيق المجال على جرائم الإرهاب الإلكتروني، فأصدر قانون رقم 3 لعام 2006، والذي يهتم بمكافحة الجرائم المعلوماتية، فتضمن القانون رقم 3 (في فقراته رقم 11، 14، 18، 21) تجريم استخدام الإنترنت لخدمة الفكر الإرهابي، كما صدر القانون رقم 7 لسنة 2014.

### عوارض الخصومة المدنية وفقاً لقانون الإجراءات المدنية الإماراتي لسنة 1992م والمعدل بالقانون

**Institution:** University of Jazeera

**College:** College of Law

**Supervisor:** -

**Presenters:** سعيد عبد الله حسن الظاهري/Saeed Abdulla Abdullah Al Dhahry

## ملخص البحث:

إن تحقيق العدالة يعد مطلباً إنسانياً تسعى إليه كافة الأمم والشعوب على مر العصور وهو أمر ليس باليسير حتى لو كان من خلال إجراءات قضائية محددة نابعة من المنهج القضائي الذي يهدف أولاً وأخيراً إلى تحقيق العدالة بين الأشخاص المتنازعين، وبالرغم من السعي الدائم لإيجاد محاكمة عادلة، إلا أنه لا بد من وقوع بعض الأخطاء التي تشوه الأحكام سواء من حيث الموضوع أم الشكل. وتتطوي إجراءات التقاضي على مجموعة من القواعد القانونية تتعلق برفع الدعوى إلى المحكمة، ووسائل الدفاع والدفع، والمواعيد الإجرائية الواجبة الاحترام في رفع الدعوى إلى القضاء، وإجراءات تحقيق الدعوى، وكيفية إصدار الأحكام وطرق الطعن فيها.

وتمتاز قواعد إجراءات التقاضي بأنها قواعد شكلية، والشكلية هنا وسيلة للحصول على الحماية القضائية، وليست غاية في حد ذاتها، وإذا كان المشرعون يهتمون بتنظيم شكلية قانونية لمعظم الأعمال الإجرائية فإن غايتهم من ذلك هو استتباب النظام في المجتمع وتحقيق المساواة بين المتقاضين، فيمكنهم الحصول على الحماية القضائية بإجراءات موحدة. إلا أنه يجب بقدر الإمكان الاقتصاد في الشكل حتى لا يطغى على الحقوق ذاتها، وتحقيقاً لهذا الهدف أخذ المشروع في دولة الإمارات العربية المتحدة في قانون الإجراءات المدنية الاتحادي رقم (11) لسنة 1992م بفكرة الغاية من شكل العمل الإجرائي، وفكرة تفادي البطالان، وفكرة الانتفاص. إلخ

كما أن إجراءات التقاضي لا تشمل على قواعد شكلية، وإنما تشمل أيضاً على بعض القواعد الموضوعية فتدخل ضمن القواعد الموضوعية التي تتعلق بطبيعة الروابط التي تنشأ بين الخصوم في الخصومة، وشروط تمثيل الأطراف أمام المحاكم، وكذلك القواعد التي تتعلق بطرق الطعن في الأحكام وأثارها سواء أكانت بالنسبة للخصوم أو الآخرين.

وإذا كانت الخصومة مجموعة من الأعمال الإجرائية التي يقوم بها الخصوم فينبغي الحديث عن العنصر الشخصي في الخصومة وخاصة الخصوم، ثم يجب التعرض للأعمال التي يقوم بها الخصوم. وتتعدد العوارض التي تمنع من السير في الخصومة، وسنعرض خلال هذا البحث لسببين هم وقف سير الخصومة، وانقطاعها في مبحثين أساسيين، بالإضافة إلى مبحث تمهيدي سأتناول من خلاله إجراءات سير الخصومة المدنية ونظر الدعوى.

## الحبس الاحتياطي

**Institution:** University of Jazeera

**College:** College of Law

**Supervisor:** -

**Presenters:** عيسى إبراهيم حسن عبدالله / Essa Ibrahim Hassan Abdulla

## ملخص البحث:

الحبس الاحتياطي هو إجراء ينطوي على سلب حرية المتهم وذلك لمدة محددة من الزمن يتم تحديدها وفقاً لما يقتضيه التحقيق من إجراءات وطبقاً للضوابط التي قررها القانون لذلك. ويثير الحبس الاحتياطي جدلاً كبيراً بشأن ما يمثله من تعارض بين مصلحتين من أهم المصالح الشرعية، وهما المصلحة الخاصة للفرد والمصلحة العامة للمجتمع، فكل شخص يفترض فيه البراءة إلى أن يتم إثبات إدانته، لذلك لا يجوز أن يتم سلب حريته منه قبل أن تثبت تلك الإدانة، بينما من جانب آخر تقتضي مصلحة المجتمع أن يتم التعدي على مصلحة الفرد ولكن بشكل شرعي يحدده القانون وفقاً لضوابط محددة يستهدف منها تحقيق صالح المجتمع وأمنه .

إن المشرع قد جعل الاختصاص مشتركاً بين النيابة العامة والقضاء في إصدار الأمر بالحبس الاحتياطي في مرحلة ما قبل المحاكمة وذلك طبقاً لمدة الحبس الاحتياطي فللنيابة العامة السلطة في إصدار أمر الحبس الاحتياطي في نطاق أربعة عشر يوماً الأولى، أما فيما زاد عن ذلك فيقع في نطاق اختصاص قاضي المحكمة الجزائية. كما اشترط المشرع بعض الشروط الموضوعية التي يجب أن تتوافر في الحبس الاحتياطي لكي يمكن الأمر به، وهي تعد في حقيقتها من الضمانات القانونية التي تضمن أن يكون تنفيذ الحبس الاحتياطي متوافقاً مع قرينة البراءة التي يجب أن يتمتع بها الشخص طوال مدة التحقيق معه وحتى يصدر ضده حكم نهائي يفصل في موضوع الدعوى .

كما توجد بعض الشروط الشكلية التي هي ضمن الضوابط الإجرائية التي تمثل ضماناً لممارسة سلطة التحقيق لإجراء يعد ماساً لأحد أهم حقوق الإنسان وهو حقه في حريته مما يعد ضماناً مزدوجة لسلطة التحقيق في أن تصيب وتصدر أمرها بالحبس الاحتياطي بالشكل القانوني كما تضمن للمتهم ألا يتم المساس بحقه في حريته إلا في أضيق الحدود وعند اللزوم. والحبس الاحتياطي يمكن أن يمتد ليصل إلى ختام المحاكمة، كما يمكن أن ينتهي في أي مرحلة من مراحل التحقيق أو المحاكمة، فالمبدأ العام أن الحبس الاحتياطي هو إجراء مؤقت وله وقت ينتهي فيه .

يعتبر الإفراج المؤقت بمثابة أمر بإخلاء السبيل للمتهم والذي يصدر لإنهاء الأمر بالحبس الاحتياطي المحجوز بموجبه على ذمة التحقيق وذلك لانتهاء وزوال الأسباب التي تبرر الحبس الاحتياطي. كما أنه توجد بعض الجرائم التي لا يجيز فيها إصدار قرار بالإفراج المؤقت عن المتهم المحبوس احتياطياً على ذمتها وقد قرر المشرع ذلك لحكمة مؤداها خطورة تلك الجرائم.

### **Islamic Finance Greening the Economy**

**Institution:** Higher College of Technology

**College:** College of Business

**Supervisor:** Dr. Mariam Aldhaheri

**Presenters:** Abdullah Mubarak Al Mheiri Salem Matar Al Neyadi

#### **Abstract:**

The World Economy is changing with all the opportunities and risk that it could offer; accordingly, financial markets are reacting differently. Can Islamic finance be one of the potentials that would reach to better economies and more efficient financial markets? Can Islamic finance achieve financial stability, to be used "as backup" support for the whole financial market, and still economies are not seizing it. Islamic finance is still a very young financial system although it showed a lot of success in many emerging markets as Malaysia and Singapore and also in the Middle East. Can the practice of Islamic finance in financial markets be as "Greening" all the economy till reaching to a more financial health free of financial pollutions!

This paper would be interested to measure the impact of financial stability when economies use Islamic finance or better practice it, the paper would test and compare the behavior of the financial institutions between two or more banks in Dubai that used traditional financing tools and converted to Islamic banking system.

This paper would analyze the financial performance of banks in Dubai based on time series analysis. A quantitative analysis would also be used through looking at various set of ratios that are routinely used to measure bank performance.

**Keywords:** Islamic finance, financial stability. Green finance, Islamic finance practices, financial ratios.

### **Speculation on Social Media: Influence on the Stock Market**

**Institution:** Murdoch University Dubai

**College:** College of Business

**Supervisor:** Dr. Madhavi Ayyagari

**Presenters:** Nivedita Ramachandra Bhat

#### **Abstract:**

To put it in perspective we look at how financial markets get influenced via social media by speculators. Stock reviews create a "product emergency" presenting the firm to reputational harm, loss of future deals, and legitimate risk. Specifically, with access to Facebook and Twitter, firms give up over the control of the online networking content about the firm, which has further weakened the advantages of corporate web-based social networking.

The sources for the study is gathered by netnography method with an exploratory type of research conducted which is supplemented by qualitative technique. Twitter examination affirms that the directing impact of online

networking fluctuates with the level of firm association and with the measure of control applied by different clients: the negative value response to a review is constricted by the recurrence of tweets by the firm, while aggravated by the recurrence of tweets by different clients (Lee, Hutton and Shu 2015, 370). Snapchat Inc. faced a risky situation in May, reported by an ex-employee of company stating that the CEO does not want to expand in an emerging market like India. Unfortunately, things got worse as many internet users tend to uninstall Snapdeal instead of Snapchat. Also, both the companies met with repercussion on social media which was later reasoned out with the concerned companies.

The predominant monetary level of the industrialist economy and is arbitrated by algorithmic and social media handling of extensive computerized informational indexes to evaluate derivatives (Arvidsson 2016, 11). The usual way of doing things of Facebook mirrors the tasks of subordinate commercial instruments (Arvidsson 2016, 20). The calculations that Facebook utilizes share family history with those of subordinate money related instruments – both are results of the impact of the 'digital sciences' on administrative practices (Arvidsson 2016, 13). The future capability of Facebook lies in its capacity to apply the validation of subordinates to the monetary valuation of standard social relations.

### **P&G: Significance of sustainability**

**Institution:** Murdoch University Dubai

**College:** College of Business

**Supervisor:** Dr. Andy Pacino

**Presenters:** Afifa Shoaib Ather      Aishwarya Subrahmanian      Rida Ahmed

### **Abstract:**

The presentation is based on Procter and Gamble (P&G) and how the concepts of job design, goal setting and flexible work arrangements influence P&G's ability to maintain or adapt sustainable practices. Due to the increase in awareness of environmental protection, sustainable procedures have become of great importance to society. The presentation will highlight the importance of sustainability. It will highlight the benefits that an organization will receive by undertaking environmental friendly practices. Undertaking sustainable practices affects the company's product development procedures as it impacts the manufacturing, consumption and recycling activities. Moreover, the presentation discusses how sustainability impacts organizational behavior.

Implementing sustainable policies helps the organization maintain the competitive situation, increase productivity and reduce pollution which will eventually reduce the costs of the company. Our research has mainly focused on the concepts of job design, goal setting and flexible work arrangements and how it influences the functioning of P&G. A well-structured job design influences the performance and productivity levels of employees. P&G focuses on adopting job enrichment to enhance the knowledge and skills of the workforce. Further, goals set by organizations provide employees with proper guidance to complete the tasks allocated effectively and efficiently.

Over the years, P&G has set many goals and objectives that have enabled them to achieve corporate social responsibility. Furthermore, providing flexible work arrangements that leads to work-life balance is of great importance as it increases satisfaction and commitment among the employees. P&G concentrates on providing flexible work strategies that lead to work-life balance, which increases commitment and satisfaction among employees. The presentation will also put forth recommendations that will enable the company to continue as a sustainable business in the long run.

### Game Simulation of Smart Taxis

**Institution:** United Arab Emirates University

**College:** College of IT

**Supervisor:** Prof. Boumediene Belkhouche

**Presenters:** Mona Reda Gomaa Megahed      Sara Mahmoud Mustafa

#### **Abstract:**

Our problem definition was derived from a real-life context. For example, within our campus, golf carts are used to transport faculty, staff, and students from one location to another. However, after investigating the use of these carts we found out that they are facing issues, such as under-utilization. Scheduling and allocation processes of these cars are carried out in an ad-hoc fashion. Thus, no real-time information about what is happening on the field is available, resulting in inefficiencies, such as delays and sub-optimal use of cars.

We address this problem by exploring alternative automated approaches to improve service quality and to effectively manage the scheduling and allocation of transportation request by implementing a software simulation of a system of autonomous (self-driving) cars. Consequently, we developed a software model to simulate the pickup and delivery transportation system using cooperative autonomous cars. Having computing power and being autonomous, the vehicles are capable of evaluating current transport conditions and make quick decisions when they receive requests from passengers.

The decisions are efficient, which means they should minimize the waiting time, travel time, battery consumption, and the cost of the ride. It is well-established that the complexity of the pickup and delivery problem (PDP) is NP-hard. Our prime strategy to address this complexity is to design a decentralized architecture to distribute computing over components of the system and to develop a set of heuristics to find optimal solutions without an exhaustive search. Our process followed Software Engineering principles to derive a sound implementation.

### Error Analysis: Difficulties Faced by the Pashtuns while Learning English Inflections

**Institution:** Abu Dhabi University

**College:** College of Arts and Social Sciences

**Supervisor:** Dr. Mohamed Fteiha

**Presenters:** Asma Gul Yousaf Khan

#### **Abstract:**

Analyzing the problems and seeking the solutions is important when it comes to the language learning process. Error analysis is an approach to identify and describe, and explain the errors made by the learners of a language. While learning English language, many errors are made by the non-native speakers. Just like every other non-native learner of the English language, there are Pashto speakers or Pashtuns who face problems while learning English. Pashto is a complex language which is a variation of Arabic script.

No previous studies have been found on the difficulties faced by the Pashtuns while learning English inflections. Hence, this study aims to find the difficulties or problems that the Pashto speakers face while learning

the inflections of English. A questionnaire based on the English inflections will be distributed among 50 learners. The participants belong to Afghanistan and Pakistan, who are situated in the United Arab Emirates and have different qualifications and level of competence in the target language.

The errors produced by these participants will be identified and on the basis of the results, the difficulties faced by the Pashtun learners of English inflections will be then analyzed and solutions will be sought.

### **Automatic Generation of Interactive Stories**

**Institution:** United Arab Emirates University

**College:** College of IT

**Supervisor:** Prof. Boumediene Belkhouche

**Presenters:** Asmaa Rashed Ali Alawadhi - Hessa Saeed Alshamsi- Amnah ulaiman Aldanhani

### **Abstract:**

Whether at home, campfires, or market squares, storytelling attracts diverse audiences willing to be transported into magical worlds. Storytelling is a social and cultural activity used to convey stories in words, sounds, and images. Stories capture, preserve, and transmit culture in its various dimensions. Transforming prose stories into interactive ones is carried informally and is yet to be formalized. Consequently, there is a need for a methodology to support the automatic translation from the prose story into its digital form. Given this state of affairs, our major objective is to develop such a methodology by investigating issues associated with the process of transforming traditional prose stories into interactive digital stories.

The process will provide the necessary tools to developers to systematically carry out the transformation. Also, it will give opportunities to researchers to discover new techniques. Our major contribution is the development of a process and its associated tools to support the automatic transformation of traditional prose stories into interactive digital stories.

The resulting framework provides the necessary CASE tools to developers to systematically carry out the transformation. Our implemented system takes the script of the written story as an input and transforms it into a game-like digital format. To automate this process, we designed two formal languages, the source language (L1) and the target language (L2). L1 is a scripting language that allows the designer to express stories in a formal way. L2 is the game language that is processed by the game-engine to animate the story.

### **Effects of Steel Fiber on the mechanical properties of geopolymer concrete**

**Institution:** United Arab Emirates University

**College:** College of Engineering

**Supervisor:** Dr. Said Abdelfattah Said Elkhoully

**Presenters:** Shaikha Ahmed Alhadhrami

Aisha Saleh Moqbel

Mooza Saeed Alaleeli

Dena Nabil Al Shari

### **Abstract:**

Cement production causes approximately 5% of the global annual carbon dioxide (Co2) emissions. The

production of one ton of Portland cement leads to the emission of 1.1 tons of CO<sub>2</sub>, vapors, dust and other harmful gases. Recently, cement replacement by ecofriendly and sustainable concrete materials in building construction, such as Geopolymer Concrete (GPC), has been increasingly used. GPC is a “new” construction material produced through the activation of fly ash in alkaline solution. Past research has focused on parametric studies and mechanical properties of normal and lightweight GPC and mortars.

To overcome the brittleness with the low tensile strength of GPC, the present investigation focuses on the mechanical performance of steel-fiber reinforced GPC. The mechanical properties included compressive and splitting tensile strengths, modulus of rupture, and elastic modulus were examined using hundred twenty GPC samples.

The steel fibers were added at different volume fraction ratios. The correlations between the compressive and splitting tensile strengths and modulus of rupture of the fiber-reinforced geopolymer concrete were established. Strength models were proposed for predictions of the compressive and splitting tensile strengths, elastic modulus and modulus of rupture accurately. The experimental results showed that adding steel fiber results in superior improvement of the flexural strength.

### **Microwave Synthesis of Poly(Vinyl Acetate) and its Thermal Properties**

**Institution:** University of Sharjah

**College:** College of Science

**Supervisor:** Prof. Mahmoud Mohsin

**Presenters:** Sumiya Pervez

#### **Abstract:**

Polystyrene, polyethylene, poly (vinyl chloride), are a few of the renowned polymers. However, our daily life would be incomplete without poly vinyl acetate (PVA or PVAc), one of the crucial ingredients in carpenter’s glues, craft glues, book bindings, paper adhesives, latex paints and paint primers, to name but a few of its applications. In this study, this often hidden gem of the polymer industry was polymerized in a microwave reactor, at a reasonable temperature of 55 °C for 1 minute 30 seconds, while employing vinyl acetate to be the monomer and benzoyl peroxide to be the initiator.

Fourier Transform Infrared (FTIR) spectra attested to the synthesis being equitable, by obtaining and comparing the query spectra to the literature spectra of PVA. Purification of the polymer synthesized was done by using 99.9 % chloroform as the solvent. Differential Scanning Calorimetry (DSC) was then run from -50 °C to 400 °C, and Thermal Gravimetric Analysis (TGA) was operated ranging from room temperature up till 600 °C. The rates of heating were 20 °C per minute for both the instruments.

The results obtained from the TGA were substantial proof of the compositional properties of PVA, and the change in mass as temperature increased. The curve obtained from DSC served to determine the glass transition temperature (T<sub>g</sub>), and it also complemented the findings of TGA by relating the peaks and troughs with the DSC profile. The thermal properties obtained by the above mentioned techniques are in par with the literature values.

### **Cloning and preliminary analysis of the role of a novel long non-coding RNA in development and its contribution to metabolic diseases using a rodent model system**

**Institution:** United Arab Emirates University

**College:** College of Medicine

**Supervisor:** Dr. Starling Emerald

**Presenters:** Noura Baniyas      Maitha Alshamsi      Sara AlShukri

**Abstract:**

Metabolic diseases are the new epidemic affecting the world today. They account for more than 60% of deaths globally. According to the diabetes atlas of the International Diabetes Federation, 18.7% of the population of UAE has type 2 diabetes. The University of Washington's Institute for Health Metrics and Evaluation shows that over 66% of men and 60% of women living in the UAE are obese or overweight.

Although many molecular causes have been attributed to diet induced obesity and metabolic diseases, the effects of dysregulated expression of long ncRNAs have not been studied well. We hypothesize that regulatory interactions mediated by long ncRNAs play critical roles in normal development and differentiation of metabolically relevant tissues and these regulations might be altered in type 2 diabetes and obesity. We have identified a novel long ncRNA which we named as lncRNA UAEU-709. The expression of this long ncRNA was studied during normal development as well as under overfed with high fat diet (obese) conditions. We have also cloned this lncRNA for further gene expression studies. Male Wistar rats of indicated ages were used for the study.

For HFD experiments, the male rats were fed with high calorie diet starting from weaning. RNA was extracted from homogenized muscle tissues using Trizol method (Ambion) of RNA extraction. Total RNA was converted to cDNA by reverse transcription (Applied biosystems). Specific primers were used to amplify the target gene by qRT-PCR analysis using SyBR Green PCR master mix (Applied Biosystems). A 1.3 Kb transcript corresponding to the lncRNA UAEU-709 was amplified and cloned from the rat muscle cDNA samples using gene specific primers. Further characterizing its role in normal

 **Session 3**

**Cardiac Anatomy and Geometry in Patients with Obstructive Sleep Apnea: Emphasis on Remodeling.**

**Institution:** United Arab Emirates University

**College:** College of Medicine

**Supervisor:** Dr. Elsadig Kazzam

**Presenters:** Aysha Mohammed Al Marzooqi

**Abstract:**

Obstructive Sleep Apnoea (OSA) is characterized by repetitive partial or complete nighttime obstruction of the upper airway. Patients with OSA are at increasing risk for arrhythmia, heart failure, coronary heart disease and stroke. However, OSA remains undiagnosed and data on cardiac remodeling is limited and controversial. As far as our knowledge this is the first clinical Echocardiographic study for the assessment of cardiac function and geometry in UAE

### **Ability of the isolated probiotic to produce a conjugated linolenic acid (CLN)**

**Institution:** United Arab Emirates University

**College:** College of Food and Agriculture

**Supervisor:** Dr. Mutamed Ayyash

**Presenters:** Bakhita Ziad Raeisi

#### **Abstract:**

Probiotic bacteria are live organisms if where consumed in adequate amount daily will improve bioavailability and nutritional content. Our paper provides evidence on the ability of several isolated strains of bacteria to produce conjugated linoleic acid. It has been reported to be anti-inflammatory, anti-obesity, and anti-cancerous in addition to a wide range of other benefits.

These types of beneficial bacteria could be found in different types of food such as milk and meat but with very low quantity won't be accounted. Therefore, this research aimed in providing all the required environmental conditions and in different temperatures for all strains to test their ability to produce CLA.

This research achieved the highest production rate among published research we had access to. Enterococcus faecium strains showed 45% production rate (the highest) at both temperatures 30 and 35C.

### **Self-reported bullying among school students in the UAE: the 2010 Global School-Based Student Health Survey**

**Institution:** United Arab Emirates University

**College:** College of Medicine

**Supervisor:** Prof. Mical Grivna

**Presenters:** Souha Alabboud

#### **Abstract:**

##### **Introduction:**

Dan Olweus, known to be the first in bullying research, recognized bullying as a major public health concern worldwide. His research reached the Arab countries including the United Arab Emirates (UAE) via the Global School-Based Student Health Survey (GSHS) which provided data about the prevalence of bullying in the UAE, making it a recognizable issue. The purpose of this study is to describe the prevalence of bullying using this self-reported survey by sex and grade as well as to examine the association of school bullying with absenteeism, parent involvement, and number of close friends among high school students in the UAE.

##### **Methods:**

The GSHS used a two-stage cluster sample design together data representative of all students in grades 7-10 in the UAE. A total of 2,581 students participated in the survey who self-reported their response to the provided questions during one class period. Data from the GSHS performed in the UAE in 2010 were analyzed. Study variables included demographic characteristics, bullying victimization, bullying methods, absenteeism and parent involvement.

## Using soil bacteria to improve phytoremediation of crude oil- polluted soils in the UAE

**Institution:** United Arab Emirates University

**College:** College of Science

**Supervisor:** Dr. Khaled El-Tarabily

**Presenters:** Naila Nabi Jan      Noura Salem Al Ahabbi      Maryam Ismail Albalooshi

Sara Salem Al Rashedi

### **Abstract:**

Many oil-degrading and 1-aminocyclopropane-1-carboxylic acid (ACC) deaminase-producing bacteria were isolated from oil-contaminated soils in the United Arab Emirates. These bacteria were further selected based on their ability to solubilize phosphorus, and to produce plant growth regulators (PGRs) including auxins and polyamines. The ability of the most-promising bacteria to improve the growth of the hyper-accumulating plants "Bermuda grass" in soil polluted with Light Arabian Crude Oil (LACO) was evaluated under greenhouse conditions.

Under greenhouse conditions, the application of a mixture of these bacteria which exhibited the maximum production of ACC deaminase, auxins and polyamines promoted significantly ( $P < 0.05$ ) Bermuda grass roots and shoots in oil- polluted soils compared to control plants grown in oil-polluted soils but without the application of bacteria. The application of these bacterial isolates has also significantly ( $P < 0.05$ ) promoted Bermuda grass growth characteristics including increased fresh and dry weight and increased length of roots and shoots, and increased total leaf area compared with control plants.

The application of a mixture of bacteria also significantly ( $P < 0.05$ ), reduced the levels of ACC in the roots and shoots compared with control plants grown in oil-polluted soils without the application of the mixture of bacteria. The application of a mixture of bacteria with the hyper accumulating plant significantly, reduced the levels of the total recoverable hydrocarbons (TRH) and polycyclic aromatic hydrocarbons (PAHs) in oil-polluted soils compared with control treatment.

In conclusion, we report the production of ACC deaminase by these bacteria and their ability to improve the growth of Bermuda grass in the presence of LACO through the reduction in the in planta levels of endogenous ethylene levels. The application of these beneficial bacteria may help in the phytoremediation of oil-polluted environments in the UAE.

## Evaluating the effect of flavonoids on cell proliferation and STAT3 activity in human breast cancer cells

**Institution:** United Arab Emirates University

**College:** College of Medicine

**Supervisor:** Prof. Basel Al-Ramadi, Prof. Maria Cabezudo

**Presenters:** Roadha Humaid Almarri

### **Abstract:**

#### Introduction

Multiple functions of human breast cancer cells were recently shown to be susceptible to inhibition by

Manuka honey (MH) through the IL-6/STAT3 signaling pathway. The activity of the transcription factor STAT3, a master regulator of oncogenesis in breast cancer, was sensitive to inhibition by as little as 0.03% MH (w/v). We hypothesized that MH's effects on cancer cells were due to its flavonoids and phenolic acid constituents. Up to 67% of the total flavonoid content in MH is accounted for by six flavonoids: pinobanskin, pinocembrin, luteolin, chrysin, galangin and quercetin.

#### Objectives:

To determine the ability of each of the six major flavonoids in MH to inhibit: (1) the transcriptional activity of STAT3 and (2) proliferation of human breast cancer cells.

#### Materials and Methods:

Two cell lines - MDA-MB-231 cells and MCF-10 cells were treated with each individual flavonoid compound using a range of concentrations (0.4-100µM). Cell viability was measured after 24, 48 and 72 hours. Western blotting was used to gauge the level of STAT3 inhibition.

#### Results:

Cell viability assays revealed differential capacity of each flavonoid to inhibit growth of breast cancer cells. Two flavonoids could inhibit cell growth by up to 40%, but only at relatively high concentrations. Biochemical analysis of STAT3 activity showed that 3 flavonoid compounds inhibited STAT3 phosphorylation at IC50 of <30M. However, no individual flavonoid showed as much inhibition as MH.

#### Conclusions:

We conclude that some flavonoids could inhibit cancer cell growth, but only at relatively high concentrations (~50µM). Three flavonoids also showed good STAT3 inhibitory potential. However, the inhibition MH achieved was superior to that observed using any of the flavonoids individually, suggesting some synergism between different bioactive compounds within MH may underlie its effects on cancer cells.

#### Ostracoda studies of some Oligo-Miocene outcrops, Abu Dhabi Emirate, United Arab Emirates

**Institution:** United Arab Emirates University

**College:** College of Science

**Supervisor:** Dr. Osman Abdelghany, Dr. Mahmoud Abu Saima

**Presenters:** Hala Salem      Mouza Al Balochi      Maha Alkindi      Hanan Almurshidi

#### Abstract:

This paper deals with the study of the discovered Ostracoda embedded in marls and limestones of the Asmari and Gachsaran Formations respectively from an Early Oligocene to Early Miocene rocks at Jabals: Hafit, Malaqet and Mundassah in Al Ain area. The Gachsaran Formation unconformably overlies limestone rocks of the Asmari Formation. Variable sizes of pores of the Asmari limestone's reach up to a few mm in diameter were observed and provide strong possibility for high permeability conditions. Such conditions make the Asmari Formation as a potential aquifer or hydrocarbon reservoir at depth.

On the other side, the occurrence of evaporites interbedded with clays of Gachsaran Formation considered

it as a seal rock. An additional economic outcome of the study was the rediscovery of pockets of Celestine (SrSO<sub>4</sub>) which are associated with the evaporites near the base of the Miocene succession. The Celestine may be related to the upwelling of saline ground during the Miocene.

The discovered ostracoda are *Xestoleberis* sp., *Cythere* sp., *Bairdopillata* sp., *Trachylebris* sp., *Loxoconchasp.*, *Paracypris* sp., *Cytherella* sp., *Ruggieria* sp., and *Leguminocythereis* sp. with the other accumulations of benthonic fauna such as larger forams, molluscs, echinoderms, bryozoa, calcareous algae and corals indicate shallowing upward sequence, the proposed depositional environment of the study area is from intertidal to supratidal conditions.

**Keywords:** Ostracoda, benthonic fauna, Asmari Formation, Gachsaran Formation, Early Oligocene and Early Miocene.

### **High Speed Photographing of Flame Propagation of Biofuels in a Combustion Bomb**

**Institution:** United Arab Emirates University

**College:** College of Engineering

**Supervisor:** Prof. Mohamed Selim

**Presenters:** Aysha Al Shamsi      Afraa Almehairi

#### **Abstract:**

Today, no one can deny the fact that the world is experiencing global climate change. Increased global warming caused by greenhouse gases is one of the major problems of human beings. One possible way to minimize greenhouse gas emissions could be using biofuels for energy production. Biofuels are organic matter made from plants or biological waste.

In this research joboba oil is distilled in order to produce bio-gasoline and biodiesel. Flame propagation was tested with the aid of high speed photographing to visualize the combustion and burning velocities of these distilled biofuels in a constant volume combustion device (called combustion bomb hereafter). The combustion bomb test is used to burn specified amount of fuel with air under fixed conditions. The bomb has pressure and temperature sensors to measure the partial pressure of both the air and the fuel.

The bomb has another sensitive pressure sensor and thermometer to get the pressure / temperature history during the combustion. Two electrodes give an electric spark to ignite the fuel - air mixture, then high speed camera is fixed near the bomb to record the flame propagation, where a trace of these pictures with time enables the calculation of the flame speed. After which the calculation of laminar burning velocity of the fuels shall be carried out from analyzing the photographs recorded from the high-speed camera. The uniqueness about this topic is that it includes flame speed measurements of new bio-diesel and bio-gasoline fuels that are not currently available. This is especially important to the UAE, since bio-diesel and bio-gasoline are promising fuels for vehicles used in transportation and power plants.

### **Size-dependent magnetic anisotropy of PEG coated Fe<sub>3</sub>O<sub>4</sub> nanoparticles; comparing two magnetization methods**

**Institution:** United Arab Emirates University

**College:** College of Science

**Supervisor:** Prof. Ihab Obaidat

**Presenters:** Amro A. Imam

**Abstract:**

Understanding the size dependent magnetic anisotropy of iron oxide nanoparticles is essential for the successful application of these nanoparticles in several technological and medical fields. PEG-coated iron oxide (Fe<sub>3</sub>O<sub>4</sub>) nanoparticles with core diameters of 12 nm, 15 nm, and 16 nm were synthesized by the usual co precipitation method. The morphology and structure of the nanoparticles were investigated using transmission electron microscopy (TEM), high resolution transmission electron microscopy (HRTEM), selected area electron diffraction (SAED), and X-ray diffraction (XRD). Magnetic measurements were conducted using a SQUID.

The effective magnetic anisotropy was calculated using two methods from the magnetization measurements. In the first method the zero-field-cooled magnetization versus temperature measurements were used at several applied magnetic fields. In the second method we used the temperature-dependent coercivity curves obtained from the zero-field cooled magnetization versus magnetic field hysteresis loops.

The role of the applied magnetic field on the effective magnetic anisotropy, calculated from the zero-field-cooled magnetization versus temperature measurements, was revealed. The size dependence of the effective magnetic anisotropy constant  $K_{eff}$  obtained by the two methods are compared and discussed.

**Keywords:** Magnetization, Nanoparticles, Magnetic anisotropy, Coercivity.

**Using Supercritical CO<sub>2</sub> for Simultaneous Microalgae Oil Extraction-Reaction for Biodiesel Production**

**Institution:** United Arab Emirates University

**College:** College of Engineering

**Supervisor:** Dr. Sulaiman Alzuhair

**Presenters:** Reem Safwan Shomal      Hiyam Haras Khalil      Amal Mlhem

**Abstract:**

Biodiesel is a promising sustainable alternative to non-renewable petrol diesel. It has become more attractive in recent years due to the increasing awareness of the depletion and environmental problems of fossil fuels. In addition to being renewable and more environmental friendly, biodiesel can be used in conventional engines without the need for any modification.

In this work, microalgae have been selected as a source for oils that can be used for biodiesel production due to their relatively high oil content and rapid biomass production. By transesterification, oils can be converted to biodiesel in the presence of a catalyst.

A biocatalyst, namely lipase, was used in this work, instead of conventional alkaline chemical catalyst, due to its low sensitivity towards the free fatty acids content in the oil, and the less energy requirements. Lipase is capable of converting oils, from different sources, without any pre-treatment to biodiesel and with easy product separation and no soap formation. Microalgae oil extraction and reaction were carried out simultaneously using supercritical CO<sub>2</sub> (SC-CO<sub>2</sub>). The use of SC-CO<sub>2</sub>, which is a green solvent, was selected to minimize the use of toxic volatile organic solvents, and to allow utilizing the leftover, after extractions, in food and pharmaceutical applications.

The results of this work provides a deeper understanding of enzymatic reactions in supercritical condition, and promises to simplify the extraction and reaction processes.

### **Moral Ambiguity in Video Game Narratives**

**Institution:** United Arab Emirates University

**College:** College of Humanities and Social Sciences

**Supervisor:** Dr. Doris Hambuch

**Presenters:** Alyazia Abdulrahman Alblooshi

#### **Abstract:**

Well written video games offer strong morally ambiguous characters through narratives that coerce the player to make conflicting choices, often labeled as either ‘bad’ or ‘good’. Such games often send an indirect message to the players, making them question their choices and the consequences.

By analyzing a variety of video games of different genres and different studios, this paper argues that video game narratives actualize moral ambiguity in an insightful and compelling way. They do so in particular by role play, fast paced decision making, and offering alternate endings depending on the choices a player makes throughout the game. By designing games with complex, morally ‘grey’ characters, and environments that react to these characters’ decisions, video games reveal how moral choices affect not only individuals, but also their environment.

### **UAE Consumers Preferences and Attitudes toward Food Safety Risk: A Survey Study**

**Institution:** United Arab Emirates University

**College:** College of Food and Agriculture

**Supervisor:** Dr. Nuha Mustafa

**Presenters:** Fatima Khamis Aldhaheri      Aamna Saif Al Hebsi      Salama Fahed AlBuaimi

Mohamed Yousif

#### **Abstract:**

Recently the global food industry has experienced an increasing number of food safety crises. Salmonella and Campylobacter common in poultry products, 65% of the UAE’s total meat supply, are among the most important food-borne pathogens globally. This project aims to survey a representative sample of Al Ain residents on their knowledge, attitudes and perceptions vis-a-vis various food risk types, with emphasis on poultry related food safety. The lessons learned from the study will have direct benefits to policy makers and to other researchers.

The main outcomes of this research include:

1. An overview on the Al Ain residents’ risk knowledge related to food safety, and the factors affecting their attitudes.

2. An outline on the determinants of food safety risk attitudes, for Al Ain residents
3. An analysis of the relation between pecuniary risk attitude and food safety risk attitude

#### **Session 4**

### **Colonization on Mars: An Experimental Analysis about Chemotherapy as Key to Survive on Mars**

**Institution:** Abu Dhabi Polytechnic

**College:** College of Engineering

**Supervisor:** Dr. Khalid Hussain

**Presenters:** Asma Helal Alyahyae      Hind Mohamed Alkhawajah

#### **Abstract:**

The red planet (Mars) has fascinated the human kind for a very long time. Even human beings have explored and conquered almost all the world, but curiosity has led them to expand their limits and explore the space. After the revolution in technology, the human species is on the verge of achieving a historic accomplishment to establish a permanent human settlement on Planet Mars. But traveling to a place which is 54.6 million kilometers away from us is a big challenge.

The primary problem for the Mars-bound crew will be the very long flight, which will last about eight months. The long travel in a small spaceship will be a challenging psychological experience. A continuous and sustainable source of food and energy is another critical challenge because Martians will not be able to grow green plants on Mars. The unavailability of the viable food source leads Martians to take their food for the whole journey from earth which results in more congestion of space.

The conventional resources are not going to help us in such a complicated mission. Visible light, the aggregate of various colors, is an instant source of energy. The right used to light sources and its color could be a helpful tool in our journey to Mars. The series of experiments on humans show that color therapy can be a practical solution to food and alternative medicine deficiency. Our experimental analysis has proven that specific color light can help plants to grow and nourish. We have also done Chromotherapy of Hamster under different color lights and conditions.

**Keywords:** color therapy, Chromotherapy, Mars, psychology, alternative food, alternative medicine, space travel, colonization of Mars.

### **Biomedical Device for Blood Based Early Detection of Vascular Disease**

**Institution:** United Arab Emirates University

**College:** College of Engineering

**Supervisor:** Dr. Bobby Mathew, Dr. Fadi Al Naimat

**Presenters:** Dina Ayman Al Jamal      Alia Shaker Al Blooshi      Maryam Solaiman Al Hassani

### **Abstract:**

Our team is aiming to save people's lives by designing a biomedical device. This work presents the simulation of a biomedical device for detecting Circulating Endothelial Cells (CECs) for early detection of vascular diseases. CECs are indicators of future occurrence of vascular diseases and a biomedical device that can identify CECs will enhance survival rate of people at risk of vascular diseases. Blood samples primarily consist of Red Blood Cells (RBCs) and White Blood Cells (WBCs). The average size of RBCs and WBCs is 6 micrometers and 12 micrometers, respectively; the average size of CECs is 23 micrometers.

This difference in size is the basis of identifying CECs in the biomedical device. The biomedical device consists of a straight channel integrated with a filter that will allow unobstructed passage of RBCs and WBCs while blocking the movement of CECs. The blocked CECs can then be flushed, from the device by pumping a buffer solution in the reverse direction. The filter consists of a bank of in-line pin-fins.

In this work a commercially available computational fluid dynamics software package, ANSYS Workbench, is employed for simulating the working of the filter. Parametric study of the biomedical device would be carried out using the computational model to understand the influence of parameters on the performance of the biomedical device. The parameters of interest include blood flow rate, cross-sectional shape of pin-fins, and dimensions of the pin-fins. The performance metric of biomedical device is separation efficiency and capture efficiency

### **Motivation and Habits of Recreational Reading of Students at Public Universities in the UAE: The Case of UAE University**

**Institution:** United Arab Emirates University

**College:** College of Business

**Supervisor:** Dr. Taoufik Zoubeide

**Presenters:** Maitha Saeed Alsaedi      Wala Ahmed      Soumia Lounis

### **Abstract:**

#### **Introduction:**

Reading is the pathway to knowledge acquisition and communication which are prerequisites for developing creative and innovative generations who lead their societies to prosperity and preeminence. In this context, the UAE government is actively engaged in developing programs and campaigns that aim to improve and promote individuals' reading abilities.

#### **Objective:**

Research suggests that reading ability is primarily a function of reading motivation and recreational reading is more reflective of reading competencies than academic reading. This research project was carried out to investigate recreational reading habits and motivation to read of students at public universities in the UAE: the case of UAE University (UAEU). The specific objectives of this study are:

1. Identify the recreational reading habits of students. This includes frequency of reading, and the type and language of the reading material.

2. Determine the individual background characteristics related to reading habits.

3. Identify the factors that motivate students to read.

#### Methodology:

This study is based on a survey of a sample of 775 undergraduate students from UAEU of whom 80% were females. Sample selection was stratified by gender with sample sizes proportional to strata sizes.

A questionnaire about recreational reading habits and motivation to read was used to collect students' responses in the period October to November 2017.

The questionnaire consists of four major parts covering demographics, the recreational reading habits of students, the development of interest for recreational book reading, and the motivation of students for recreational book reading. Part 4 of the questionnaire is a standardized questionnaire about reading motivation of adults developed by Schutte & Malouff (2007, Reading Psychology). Data analysis was carried out using IBM SPSS (version 23). Descriptive and inferential statistics were used to summarize results and investigate relationship between variables.

#### ERPs, SEMs and Management Accounting practices in UAE Organizations

**Institution:** United Arab Emirates University

**College:** College of Business

**Supervisor:** Dr. Mayada Abd El-Aziz Youssef

**Presenters:** Mouza Salem Aldhaheri

Al Baraa Al Nomieh

Majd El Deen Talas

#### Abstract:

The purpose of this paper is to contribute to the body of knowledge about to what extent Enterprise Resource Planning Systems (ERPs) and Strategic Enterprise Management systems (SEMs), affect the ability to perform different management accounting practices. It seeks to refine the findings and theory on the impact that ERPs implementations have had on management accounting.

Accordingly, this study investigates the relationships between ERPs, with its embedded modules, and various management accounting practices (MAPs). In contrast to the extant research that presumes a direct influence of ERPs on MAPs, we investigate whether the SEM mediates this presumed relationship between the two sets of variables, a link overlooked in previous studies. Structural equation modelling analyses the data collected from cross-sectional survey of 82 UAE firms.

The findings show that the relationship between ERPs and management accounting tasks is partially mediated by SEMs. We discuss the contribution of the study and highlight areas of future research.

#### Estimating Strength Properties of Upper Eocene Carbonate Rocks

**Institution:** United Arab Emirates University

**College:** College of Science

**Supervisor:** Prof. Hasan Arman, Dr. Saber Hussien

**Presenters:** Shamma Khalfan AlShehyari      Hiba El Imam

**Abstract:**

Measurement of rock strength in either in-situ or laboratory environment is relatively expensive, time consuming and requires considerable efforts for rock sampling, preparation and laboratory tests. In addition, quite number of specimens must be tested to produce a representative value for a large rock exposure. In literature, there are different suggested testing methods are available.

These are unconfined compressive strength (UCS), Brazilian strength (BRS), point load strength index (PLSI) and Schmidt hammer hardness (SHH) tests. Results of these tests can be used to interpret of rock strength properties. In this study, carbonate rocks, Upper Eocene Dammam Formation, are designated as a targeted area since they represent large exposure of rock masses around the Jabal Hafit (Hafit Mountain), Al Ain city. Approximately 40-50 rock block samples within 0.30x0.30x0.30 m in size, from different locations were collected. Test samples were prepared from collected rock blocks based on the ASTM standards. Then, about fourth UCS, fourth-one ITS, thirty-seven PLI and hundreds to thousands of SHR tests were carried out on rock blocks and core samples according to related ASTM Standards.

The study reveals that the relationships between UCS and PLI, ITS, SHR of carbonate can be estimated using the simple linear mathematical equations. However, the results show a weak to weaker linear correlation with highly scattered data. Sample heterogeneity and nature of the sample may cause this data scattering. Due to fact that, it still requires better confirmation with more samples from different locations to generalize data and use in engineering applications such as rock slope stability, underground opening, etc.

**Keywords:** Rock Strength, Carbonate Rocks, Uniaxial Compressive Strength, Tensile Strength, Point Load Index., Schmidt Hammer Hardness

**Can Food Retail Stores in Al Ain Utilize Online Marketing Platforms in Retailing?**

**Institution:** United Arab Emirates University

**College:** College of Food and Agriculture

**Supervisor:** Dr. Aydin Basarir

**Presenters:** Maitha S. Ali Al Aryani      Shamsa S.Nasser Alblooshi      Shaikha M. Salem Al Ghaithi

**Abstract:**

The revolution in information and communication technology change the way entrepreneur conduct business today (1). E-commerce provides opportunity to disseminate product information to customer via different online marketing platforms (2). The companies have realized the Internet as communications platform and started to utilize it as alternative marketing practices (3). Such platforms enable businesses to reach worldwide consumers (4). The communication through social media has impacts on consumer decision making and thus marketing strategies (5).

Social, mobile, and location based marketing platforms have transformed the online marketing landscape and are grooving significantly (6). The firms are still in the process of learning technologies of the platforms and implementing them to their activities. The main objective of this study is to determine if the social, mobile, and location based marketing platforms can provide alternative marketing opportunities for food retail stores in Al

Ain. A survey has prepared and conducted on 244 randomly selected food retail stores.

Deterministic statistics and logistic models were utilized to analyze the data. According to results, the majority of retailers were aware of the platforms. Of the 244 respondents, 71.7, 58.2 and 65.2 percent were member of at least one social, Mobile, and Location based marketing platforms, respectively.

Social marketing platforms were utilized by businesses close to city center, have more workers, and higher daily revenue. The older retailers who has higher income, corporation/ franchising kind of business, and offers fast food preferred the mobile Marketing platform. Location based marketing platforms was preferred only by higher income retailers

The success of a food retailers in Al Ain seems to be depended largely on their ability to identify alternative way to market their products food. The social mobile and location based marketing platforms can be considered as one of the best alternative for them.

Keywords: Social Marketing, Mobile Marketing, Local Based Marketing, Logistic Model.

### **Sustainable Development in the UAE Through Cement-Free Geopolymer Concrete**

**Institution:** United Arab Emirates University

**College:** College of Engineering

**Supervisor:** Dr. Hilal El-Hassan

**Presenters:** Rami Al-Dandan      Mazen Abd El-Razek

#### **Abstract:**

Industrial solid wastes are by-products of economic development and human activities. Rather than wastefully discarding them in stockpiles or landfills, waste materials can be reutilized in other applications. The construction industry is an ideal area to recycle these industrial by-products in the form of a sustainable binder to alleviate anthropogenic emissions, reduce depletion of natural resources, and provide a recycling bin for industrial waste.

This study examines the performance of a cement-free geopolymers made with locally available fly ash, ground granulated blast furnace slag, and dune sand and activated by an alkaline activator solution (AAS) of sodium silicate (SS) and sodium hydroxide (SH). The effect of curing conditions and mixture proportioning on the mechanical properties of geopolymer concrete were evaluated at early and late ages. Heat curing was found to be essential for strength development of fly ash-based geopolymers, but could be eliminated by partially replacing fly ash with slag.

The incorporation of 25% slag resulted in superior mechanical performance, owing to the activation of calcium-carrying compounds. Further increase in the replacement of fly ash by GGBS resulted in less workable mixes that set within a few minutes after casting. The compressive strength was thus lower than fly ash-based counterparts. Nevertheless, the addition of superplasticizer improved the rheology of slag-based geopolymers, leading to comparable compressive strength. Experimental findings showed that compressive strength increased as the amount of dune sand and SH-to-SS ratio decreased.

## The Fractional Laguerre Equation of Conformable Type: Series Solutions and Fractional Laguerre Function

**Institution:** United Arab Emirates University

**College:** College of Science

**Supervisor:** Prof. Mohammed Al-Refai

**Presenters:** Rasha Majed Shat      Safa Emad Alrefi

### **Abstract:**

In this paper, we propose a fractional generalization of the well-known Laguerre differential equation. We replace the integer derivative by the conformable fractional derivative of order  $0 < \alpha < 1$ . We then apply the Frobenius method with the fractional power series expansion to obtain two linearly independent solutions of the problem.

For certain eigenvalues, the infinite series solutions truncate to obtain the singular and non-singular fractional Laguerre function. We obtain the fractional Laguerre functions in closed forms, and establish their orthogonality result. The applicability of the new fractional Laguerre functions is illustrated.

## Evaluation of Routing protocol in Nanonetwork

**Institution:** United Arab Emirates University

**College:** College of IT

**Supervisor:** Dr. Najah Abu Ali

**Presenters:** Sheikha Al Ghaithi      Maha Al Maazmi

# Poster Presentations

## **Ref. NO#1**

### **Effect of Polyphenols from Date Seeds on Adipocyte Differentiation**

**Institution:** United Arab Emirates University

**College:** College of Food and Agriculture

**Supervisor:** Dr. Carine Platat, Dr. Rubina Sabir, Dr. Jaleel Kishakkayil

**Presenters:** Maryam Naveed Muhammad      Ranad Salman Abu Salman

Shahd Q. Alabadla

### **Abstract:**

Obesity is escalating globally at an alarming rate. It is becoming a major issue in UAE too. Its prevalence keeps increasing, in spite of huge efforts exerted into public campaigns, research and interventions. In obese state, adipose tissue expands to accommodate excess energy intake through hyperplasia (increase in number) and hypertrophy (increase in size) of adipocytes. Thus, targeting both hypertrophy and hyperplasia, and identifying potential factors that regulate these processes are important in treating and preventing obesity.

Polyphenols are phytochemicals that are found naturally in plant sources. It is well known that date seeds are a good source of polyphenols. In UAE, dates are abundant and a favorable food choice for locals. Polyphenols have shown to have an inhibitory effect on adipocyte differentiation. However, studies on the effect of polyphenols on adipose differentiation are limited, besides being contradictory. Moreover, no study has been performed so far on the effect of date seed on 3T3-L1 preadipocyte differentiation. Thus, the aim is to study the effect of polyphenols found in date seed on 3T3-L1 preadipocyte differentiation. We hypothesize that polyphenols from date seeds extract inhibit 3T3-L1 adipocytes differentiation. The objective is to know the right dose of date seed extract that will show a positive effect on the inhibition of preadipocytes differentiation. The 3T3-L1 cells were treated with different concentrations of date seed extract: 2000ug/ml, 1000ug/ml, 250ug/ml, 100ug/ml, 50ug/ml, 25ug/ml, 10ug/ml, 5ug/ml and 0ug/ml etc. Cells were then stained with add Oil red O solution and the absorbance was measured at 500 nm.

Our study demonstrated for the first time that polyphenols from date seed extract successfully inhibited lipid accumulation and adipocyte differentiation in 3T3-L1 preadipocytes in a dose dependent manner. Thus, from our study, consumption of at most 100 µg/ml dose of date seed extract may be considered safe.

## **Ref. NO#2**

### **Designing and building two stage epicyclic gear box**

**Institution:** United Arab Emirates University

**College:** College of Engineering

**Supervisor:** Dr. Sangarappillai Sivaloganathan

**Presenters:** Mozah Saeed Alyammahi      Hessa Hamdan Alhebsi

### **Abstract:**

Rotary motions in industrial applications often require different torque speed combinations than those produced by the prime mover. Gearwheels mounted on shafts are employed to convert the torque speed combinations to match the requirement. The arrangement of gearwheels on shafts is called a gearbox and an epicyclic gearbox contains gearwheels connected in a way that at least one wheel rotates about its own axis while the axis revolves around another fixed axis. Advantages of epicyclic gearboxes include high speed-reduction or speed-increase, compact size and even load distribution on the gearwheels, making it suitable for loading with sudden impact loads.

In this research, a two-stage epicyclic gearbox is designed in a systematic way and manufactured using transparent material so that the behavior can be seen clearly. It is connected to a simple AC motor so that the operation can be obvious. It shows how the arrangement can be used as a stepping-up or stepping down arrangement by simply changing the connection of the output and the input shafts. The designing process will be done using CATIA software and the manufacturing will be done using the CNC machine wherever appropriate. The paper will explain how the design was carried out and how the components are manufactured and assembled. The explanation of the design process demonstrates how the various machine elements learned in the Machine Design courses can be used in the design of complex systems. The results of the work will lead to a complete understanding for the epicyclic gear box and it will represent the concept and the importance of this type of gear box.

### **Ref. NO#3**

#### **Alturjoman Alsagheer, Basic Language App for kids**

**Institution:** United Arab Emirates University

**College:** College of IT

**Supervisor:** Dr. Saad Harous

**Presenters:** Fatima Abdullah Alkhoori      Aesha Mohammed Alzaabi      Sara Sultan Al Saedi

### **Abstract:**

We implemented an application that teaches Arabic children the basics of these languages; English, Spanish and German. The application teaches children the alphabets, basic words and basic phrases. In addition, it uses voice recognition and image recognition to provide the user with a fun and beneficial learning experience. The application tests the kids using a simple quiz to test what they have learned.

### **Ref. No#4**

#### **Quantification of polyphenols in Arabic dishes and estimation of the average daily consumption of polyphenols in the UAE University community**

**Institution:** United Arab Emirates University

**College:** College of Food and Agriculture

**Supervisor:** Dr. Carine Platat

**Presenters:** Bayane Ben Khadra      Alia Ahmad Bahjat Ratrou

### **Abstract:**

Polyphenols are a class of natural compounds that exist in vascular plants. They are well-known for their anti-inflammatory, antioxidants, and cardio protective activities. Although everybody agrees on their benefit, there is no data regarding the daily average consumption. Estimation of the level of consumption is needed before providing dietary recommendations, to optimize health benefits and avoid any toxicity due to excessive consumption. This quantification is based on the polyphenol content of food products. The Phenol Explorer Database assesses the polyphenols content of variety of food products. However, Arabic foods are absent from it. This study aims to estimate polyphenols content of some of the most popular Arabic foods, and estimate the average daily intake of polyphenols for individuals in the UAEU community.

### **Ref. No#5**

#### **Predicting Missing Links in Knowledge Graph**

**Institution:** United Arab Emirates University

**College:** College of IT

**Supervisor:** Dr. Nazar Zaki

**Presenters:** Alanoud AlJaberi      Amel AlAmeri

### **Abstract:**

There are a large number of biological databases available for scientists. These databases are in different formats and they can be converted into the Resource Description Format (RDF) and semantic web methods can then be used to store and query them. These databases have “inter” and “intra” database relationships. RDF has an inherent graph structure, and a graph can be created to reflect these connections. We call such a graph a knowledge graph. In this paper, we conducted a test on the effectiveness of different methods in predicting links under several machine learning algorithms. We generated a hypothetical knowledge graph and calculated the Local, Quazi-global and Global features for each pair of nodes. Based on the value of these features, we ran three classification algorithms suit to classify pairs of nodes into two classes; the class of linked nodes and the class of nodes without a link.

Our results show that, precision, accuracy and recall is increased when more global information is utilized. Support Vector Machine (SVM) and k-nearest neighbor algorithm (IBK) were able to achieve 100% precision, recall and accuracy when global information were used in features.

### **Ref. No#6**

#### **The Mechanical Properties Of Bones From Wistar Rat**

**Institution:** United Arab Emirates University

**College:** College of Medicine and Health Sciences

**Supervisor:** Dr. Sahar Mohsin

**Presenters:** Husain Chaqfa

## **Abstract:**

Mechanical testing has been regarded as the gold standard to investigate the effects of various pathologies on the structure-function properties of the skeleton. Wistar rats are commonly used as an experimental animal model to study biomechanical properties for such studies.

The aim of the current study was to determine the mechanical properties of normal rat bones from an appendicular and axial skeleton. Bones can be compared to a composite material which undergoes a variety of forces such as compression, tension, and shear. In this study, we determined the flexural strength of long bones from 10 Wistar rats using MTS Universal Testing Machine. Three-point bending test was carried out for whole bone specimens using the 100kN load cell. All tests were conducted at room temperature and under 0.2 mm/min overhead speed.

We determined the ultimate load/force and maximum flexural strength for rat's femur, tibia, humerus, radius, and ulna. Results of the study show an average maximum flexural strength of  $103 \pm 25$ ,  $151 \pm 41$ ,  $275 \pm 62$ ,  $93 \pm 44$ ,  $81 \pm 51$  MPa for femur, tibia, radius, ulna, and humerus respectively. The data obtained will be helpful in assessing the mechanical properties of bones in different pathologies and will also help in understanding the mechanism and management of fractures and design of orthopaedic appliances.

## **Ref. No#7**

### **Newly discovered Topological Insulator Sr<sub>3</sub>SnO, Optical and Electronic properties**

**Institution:** United Arab Emirates University

**College:** College of Science

**Supervisor:** Dr. Nouredine Amrane

**Presenters:** Rasha W. Adnan Mohd

Juwayni Lucman

Faris Mahmoud Safieh

## **Abstract:**

A theoretical study of the electronic and optical properties of dilute magnetic semiconductor Sr<sub>3</sub>SnO is presented. In this approach, Sr<sub>3</sub>SnO properties will be calculated by means of first-principles density-functional total-energy calculation using the all-electron full potential linear augmented plane-wave method (FP-LAPW). The Perdew–Burke–Ernzerhof (GGA08), (generalized gradient approximation) is used for the total energy calculations, while the Modified Becke–Johnson (MBJ) is used for electronic structure calculations since this functional was designed to reproduce as well as possible the exact exchange correlation potential rather than the total energy, and as a result gives significantly improved results such as band gap and electronic structure.

In this study, we have investigated the optical properties by means of first-principles density functional total-energy calculation using the all-electron full potential linear augmented plane wave method (FPLAPW).

**Ref. No#8****Robotic Therapy for Developing Social Skills in Kids with Autism****Institution:** United Arab Emirates University**College:** College of IT**Supervisor:** Dr. Fady S. Alnajjar**Presenters:** Mariam Saif AlKaabi

Shamma Salem AlWahaibi

Fatima Saeed AlDhaheeri

**Abstract:**

Autism results from unknown complex neural disorders in early brain development. Most children with autism have difficulty engaging in the give-and-take of everyday human interactions. Early intervention with effective behavioral therapies can contribute significantly in preliminary brain development and recovery speed. Current medical treatments for Autism have limited successful rate and has not been significantly improved since the last 10 to 15 years. Our idea is to combine information technology to support such medical limitation. In the recent years, social-robotics received an unprecedented welcome, especially in the world of children with Autism.

The reason is due to the fact that autistic children are more comfortable looking and dealing with a robot than a human therapist who carries out naturally complex behaviors and volatile emotions. We are targeting building a novel bio-inspired social robot that can provide an effective therapy and social communication to children with Autism. Our humanoid-robot will first target to win the attention of the child, since the attention is the key factor to stimulate the child mirror neurons, the source of social development in human beings. Second, we will target the motor coordination training of the autistic children through the robot. Our unique project is multi-levelled designed systems that will handle various aspects such as: communication, body-movements, evaluation, and continuity. The system is made of an assist subsystem and an analytical subsystem. The assistive subsystem uses a combination of semi-controlled robots and virtual avatars trained with artificial neural networks for teaching social skills and facilitation delivering the emotions to the patient. The analytical subsystem provides quantitative measurements that serve as a progress report and as a feedback to the self-optimizing subsystems. We believe that our project has a great potential not only to enhance the lives of those who struggle with Autism, but also to solve an important issue in the ecumenical aspects to Autism treatment in UAE.

**Ref. No#9****Synthesis and Characterization of Lead Halide Perovskite for Solar Cell Applications****Institution:** United Arab Emirates University**College:** College of Science**Supervisor:** Dr. Naser Qamhieh, Dr. Adel Najjar**Presenters:** Basem Ehab Abdelaziz

Ameen Mansour

Ibrahim Al Ghoul

**Abstract:**

The synthesis of a perovskite based on lead halide perovskites (CH<sub>3</sub>NH<sub>3</sub>)<sub>2</sub>PbI<sub>3</sub> is reported. Simple precursors

such as  $PbI_3$  and  $CH_3NH_3Cl$  are used to synthesize this material under ambient conditions. The variation in the number of solution droplets on the substrate leads to different perovskites film thicknesses. The morphology, structure, optical gap of these perovskites are investigated using SEM couples with EDX, X-ray diffraction, and UV/Vis measurements, respectively. Then a stability study will be presented, which carried by measuring the absorption coefficient after exposing the perovskite to air for different time intervals. This organic-inorganic perovskites is receiving the interest of researchers due to its various optoelectronic applications.

**Ref. No#10**

**Online Monitoring for Early Detection of Water Toxicity**

**Institution:** United Arab Emirates University

**College:** College of Engineering

**Supervisor:** Dr. Mohammed Abdul-Hafez

**Presenters:** Shaikha Salem AlDhaheeri      Aesha Ebrahim AlAli

**Abstract:**

Water is essential for human survival. Hence, fresh water is a valuable resource that must be carefully monitored and maintained. The existing traditional monitoring systems are none real time, slow and mostly need laboratory tests. Therefore, the development of a real -time and online Monitoring for Early Detection of Water Toxicity System is proposed. The main contribution of this research is to design and develop a low-cost system to continuously monitor potable water quality and to early detect of any water toxicity by using a smart water sensor network. This is achieved by using a network of multiple sensing nodes to detect water quality parameters. These nodes will be mounted at different locations on the transmission lines of Water Distribution Company and water tanks at every residence in the neighborhood. The resulting monitoring network will be able to detect potential contamination events. Different types of sensors are studied to find the most efficient ones that can be used to measure the various required water quality parameters. The sensors involved in this research are pH, Oxidation reduction potential, dissolved oxygen, conductivity, temperature and turbidity sensors. The data available from the various sensors are processed by the Arduino microcontroller and transmitted to a data center using Zigbee communication protocol through Wi-Fi gateway.

The data will be presented on graphical dashboard or in row data form using application. The system will consist of a three water tanks filled with drinking water along with sensors that are mounted inside the tanks and connected to the central monitoring software for data visualization. Different types of toxics will be added to the water to determine the ability of the system to provide rapid and accurate detection. Figure2 illustrate the system block diagram and some results.

**Ref. No#11**

**Simulation Models for Economical Design of Regions of Discontinuities in Concrete**

**Institution:** United Arab Emirates University

**College:** College of Engineering

**Supervisor:** Dr. Tamer El-Maaddawy

**Presenters:** Ahmed Khaled Hamed ElZaher      Aiman Mousa Hussein

## **Abstract:**

Reinforced concrete deep beams with web openings are considered regions of discontinuities in concrete structures. Design of such regions represents a challenge to the engineering community because they have traditionally been designed using dissimilar empirical equations that are not universally applicable. Due to the absence of a rational and consistent approach to solve such complex problems, conservative and uneconomical solutions are typically used which negatively affect the UAE community and society.

This research aims to develop economical design solutions of regions of discontinuities in concrete structures using numerical simulation. Three-dimensional numerical simulation models with different reinforcement schemes around regions of discontinuities in concrete structures were developed. Numerical results indicated that the creation of web openings in concrete deep beams resulted in a significant reduction in the shear resistance. Installation of steel reinforcement around the openings improved the shear capacity.

Results of numerical analysis have been used to determine the most economical design solution. The developed models can be used as a numerical platform for performance prediction of disturbed regions in concrete structures.

## **Ref. No#12**

### **Time activity budgets, gular fluttering and responses to heat stress in Socotra Cormorants**

**Institution:** United Arab Emirates University

**College:** College of Science

**Supervisor:** Dr. Sabir Muzaffar

**Presenters:** Hessa Sultan Khasouni

## **Abstract:**

Birds achieve thermoregulation through various behavioral adaptations such as standing and flapping or tucking their beaks in feathers. Thermoregulation is essential because it helps birds survive with unfavorable weather conditions, including extreme heat in the desert and cold weather during the winter season. For instance, in the extreme cold, any part that is not covered with feathers is a potential opportunity for the bird to lose body heat.

Consequently, without mechanisms to cope, such a condition could be deadly. The primary objective of the paper is to monitor the time activity patterns of nesting birds and establish the relationship between gular fluttering and temperature in Socotra Cormorants, *Phalacrocorax nigrogularis*. Sony HD cameras were deployed in the Socotra Cormorants habitats on Siniya Island, Umm Al Quwain, and UAE, to measure different behavioral attributes. Videos were recorded during several days in November 2012 between 8:00 AM-12:00 PM.

Each time, the data collected was summarized by taking the average of each behavior and converting it to a percentage for easy analysis. Gular fluttering was estimated by counting the number of times a bird fluttered its esophagus per minute. More birds started gular fluttering as the day progressed. Birds increased gular fluttering rates as the day warmed up, suggesting proportionality to the rise in temperature as the day progresses. Gular fluttering is therefore an important thermoregulatory behavior for Socotra Cormorants breeding in UAE. **Keywords:** thermoregulation, gular fluttering, nesting birds, Socotra cormorant, UAE.

**Ref. No#13****Time activity patterns of Arabian red foxes (*Vulpes vulpes arabica*) on Siniya Island, UAE****Institution:** United Arab Emirates University**College:** College of Science**Supervisor:** Dr. Sabir Muzaffar**Presenters:** Lamyia Mohammed Saeed AlYileili**Abstract:**

Food hoarding is a vital behavior among red foxes, *Vulpes vulpes arabica*, in the Arabian Peninsula, where harsh weather makes food scarce during certain months of the year. Food hoarding involves hiding some prey items for later use. This research study aimed at understanding food hoarding behavior among red foxes on the Siniya Island, Umm Al Quwain. Bushnell Camera traps were placed along two grids and in selected locations on the island (320 videos, totaling to 3,200 seconds were used for this study and fox behavior was analyzed. 100 of these videos were recorded between 05-03-2014 and 15-03-2014 while the remaining 220 were recorded between 07-04-2014 and 21-04-2014. An echogram was constructed identifying all possible behaviors of these foxes based on preliminary observations of the videos.

Days were divided into 5 periods, which include 5:00-10:00, 10:01-12:00, 12:01-17:00, 17:01-22:00, and 22:01-4:59, to facilitate understanding of temporal differences in fox behavior. Behavior differed during the day and varied between months. Red foxes were highly active late in the evening all through to early hours of the day. They were inactive between 10:00hrs and 17:00hrs. Catching and hoarding of food occurred frequently during the evening hours. Young and adult foxes were generally less active in April than in March. Furthermore, food caching behavior was more elevated in March than in April.

The findings of this study show that food hoarding behavior among red foxes is dependent on the time of the year and food abundance. Food was abundant during the winter months when a colony of Socotra Cormorants nested there. Hoarding behavior was especially important for foxes in this study because they were isolated from the mainland, and movement from the island was not an option. Thus, foxes would have to rely on hoarded food to survive the harsh summer.

**Ref. No#14****Identification of saturated fatty acid regulated lncRNAs during in vitro human embryonic neurogenesis****Institution:** United Arab Emirates University**College:** College of Medicine and Health Sciences**Supervisor:** Dr. Suraiya Ansari**Presenters:** Sahar Nayef Almansoori

Amani Khamis Albedwawi

Fatima Muhsen Alhashmi

Sareh Yarmohammad Karimi

**Abstract:**

Both epidemiological as well as experiments on animal models have provided evidence that maternal obesity

and metabolic complications increase the risk of neurodevelopmental disorders (NDDs). However molecular mechanism/s behind this association is not known. Several studies have recently indicated the role of long noncoding RNAs (LncRNAs) in NDDs. In this study, we have identified LncRNAs which were differently expressed due to high levels of saturated fatty acid treatment during in vitro human embryonic neurogenesis using hESCs as model. We found that several of these LncRNAs altered due to increased fatty acids levels target genes which are known regulators of developmental neurogenesis. Our studies suggest that mis-regulation of specific LncRNAs could be responsible for adverse neurodevelopmental outcomes of metabolically compromised pregnancies.

#### **Ref. No#15**

##### **genetic populations VS associativity**

**Institution:** United Arab Emirates University

**College:** College of Science

**Supervisor:** Dr. Farrukh Mukhamedov

**Presenters:** Azza Saif Ali Saif Alsuwaidi      Sara ghanem saif alkhanyari Almazrouei

#### **Abstract:**

There exist several classes of non-associative whose investigation has provided a number of significant contributions to theoretical population genetics. Such classes have been defined different times by several authors, and all algebras belonging to these classes are generally called genetic. Such kind of operators are mostly described by quadratic stochastic operators. They are generally commutative but non-associative, yet they are not necessarily Lie, Jordan, or alternative algebras. In addition, many of the algebraic properties of these structures have genetic significance. In the present work we consider low dimensional genetic algebras associated with triple stochastic matrices. We find some conditions for the associativity these genetic algebras.

#### **Ref. No#16**

##### **Effects and Solutions for Vitamin D deficiency in the Emirate Population**

**Institution:** United Arab Emirates University

**College:** College of Science

**Supervisor:** Dr. Iltaf Shah

**Presenters:** Sheikh Tijan Jobe      Ibrahim Mohammad Tahir

#### **Abstract:**

Our research will be covering the aspects of Vitamin D deficiency and its solutions in the Emirati population. Vitamin D plays countless different roles in the human body. According to the Gulf news, the UAE is among the countries with the highest Vitamin D deficiency rates with up to 90 % of the total population. When people hear about Vitamin D deficiency, the first idea that crosses their mind is that, people don't get exposure to the sun.

This is partially correct, it is actually the UV radiation from sunlight that must be absorbed to initiate certain chemical reactions that convert cholesterol under the skin into Vitamin D. Experts recommend at least 15 minutes of sun exposure every day. The main aim of our research is to awareness about the Vitamin D. This Research Conference will be a great benefit for us, by connecting it to our senior graduating research project course which is

also about Vitamin D, but in much greater depth. Analysis of samples will be done using Liquid chromatography–mass spectrometry LC/MS instrument. Low vitamin D levels not only causes bone problems, latest research shows that Vitamin D deficiency is linked with kidney disease, diabetes, fatigue, erectile dysfunction, mental issues like depression, dementia and even eye problems. The aim of our research is to explore how Vitamin D deficiency contributes to these health issues, so that people can benefit from it by taking some precautions to avoid these problems.

#### **Ref. No#17**

#### **Design & Implementation of a Platform for the processing of urban data streams**

**Institution:** United Arab Emirates University

**College:** College of IT

**Supervisor:** Dr. Badidi Elarbi

**Presenters:** Nouf Ali Al Neyadi      Fatima Saeed Al Kaabi      Meera Saeed Alsaedi

#### **Abstract:**

Over the last few decades, many cities are experiencing great pressure caused by urban growth and migration waves. Their infrastructures need to respond adequately to the increasing demand for the supply of water, energy, transportation and ensure quality healthcare and education services. To deal with these pressing issues, city stakeholders are relying on digital technologies to enhance the efficiency of various city systems, improve the quality of services delivered to citizens, reduce costs and balance budgets. Urban data streams originate from various sensors deployed in smart cities as well as from social media sources such as Twitter and Facebook. This paper describes our proposed data pipeline for the acquisition and processing of urban data streams. The proposed platform will facilitate real-time event detection, correlation and notification of alerts, combined with rich visualization tools to help build monitoring dashboards. A prototype of the platform is being implemented by relying on the Kafka messaging platform. A scenario of usage will consider detecting various events taking place in a smart city, examine the spatial and temporal pattern of an event, and conduct sentiment analysis by mining the opinions of citizens regarding the governance of their city.

#### **Ref. No#18**

#### **Automated Threats Alerting System**

**Institution:** United Arab Emirates University

**College:** College of IT

**Supervisor:** Dr. Fekri Kharbash

**Presenters:** Nouf Ali Salem AlNeyadi      Mouza Saeed Mohammed Alhemeiri      Khawla Rashed AlShehhi

Aamna Ali Alteneiji

## **Abstract:**

With the active efforts of the UAE government to improve the quality of life, and ensure stability and happiness to their nation by employing large data and Internet-of-things applications, the Automated Threat Alerting System (ATAS) is an intelligent surveillance and alerting system proposed as a contribution to improve the safety of the nation. ATAS's main objective is to automate incidents reporting to provide real-time data with high accuracy in order to reduce the number of incidents in the public and work places for a safer community.

The system is composed of two main parts, the monitoring devices and the dashboard. The monitoring devices provide surveillance to detect abnormal changes and incidents such as gun shooting, toxic gas leakage, fire incidents and abnormal weather. The dashboard provides analysis on the status of the monitored locations (i.e. malls, schools, and government organizations) and automatically reports any detected threats to the appropriate party.

The real-time monitoring and analyzing of risk exposure or threats at locations where the system is deployed will help in enhancing the traditional security and safety measures, and introducing more risk preventative procedures on the long run. Introducing an innovative technique on automated incident reporting by eliminating the human factor will provide government agencies with the ability to respond quickly to incidents resulting in rescuing injured people faster, preventing risk and illegal activities in vibrant places from spreading and reducing after incident effects.

## **Ref. No#19**

### **Social Media Analytics for event detection in the UAE smart cities**

**Institution:** United Arab Emirates University

**College:** College of IT

**Supervisor:** Dr. M. ELARBI BADIDI

**Presenters:** Aysha Mohammed Alshamsi

Aysha Sultan Alnuaimi

Amna Ghanem Alshamsi

## **Abstract:**

Smart cities utilize multiple digital technologies to enhance the quality of the city services. They generate a huge volume of structured and unstructured data on a daily basis. According to 2014 IDC estimates, there will be by 2020 more than 200 billion sensors generating an estimated 10% of data. Also, social networks, such as Twitter, Facebook, and Google+, are becoming a new source of real-time information in smart cities. In this project research, we are seeking to collect and analyze social media data of the city of Dubai, which an increasing number of events is taking place every year in Dubai. Therefore, it is paramount to analyze the conversations of Dubai citizens with regards to these events. First, we propose to focus on data from Twitter given the small size of tweets related to the topics. Twitter consider as a good source of information for real time event detection and analysis. We use Twitter API and python programming language to get up-to-date tweets. We intend to use a variety of modeling and analytical techniques to carry out social media analytics, such as sentiment analysis that support the data understanding stage.

This investigation will result in a better understanding of public's needs and concerns so that event organizers and city governments will take timely reactions to those concerns.

**Ref. No#20****Financial Development and Economic Growth: the Gulf Cooperation Countries (GCC) case****Institution:** United Arab Emirates University**College:** College of Business and Economics**Supervisor:** Dr. Fernando Zanella**Presenters:** Aysha AlKaabi      Bader AlKaabi      Ahmad Faisal Sadeqyar

Jae You

**Abstract:**

The objective of the research is to test if there is a relationship between financial development and economic growth for the GCC countries by testing it with the pairwise granger causality test. The theory can be summarized by the following four hypotheses: H1) There is no relationship between financial development and economic growth; H2) There is a causality running from financial development to economic growth; H3) There is a causality running from economic growth to financial development; H4) It is a case of causality between the two.

Our research results support the first hypothesis for UAE, Saudi Arabia, Kuwait, and Qatar, the second hypothesis for Oman, and the third hypothesis for Bahrain. Possible explanations for our findings are that Bahrain already has a very mature financial market, so now the growing economy may be supporting an additional growth of the financial sector. Oman, with less developed financial sector, may be reaping the benefits of increasing credit for the private sector while UAE, Saudi Arabia, Kuwait and Qatar, unlike Bahrain and Oman, have vast oil wealth, and this sector is possibly overshadowing the financial sector because oil reserves are historically driving economic growth.

**Ref. No#21****Measures of Happiness in UAE: An Empirical Study****Institution:** United Arab Emirates University**College:** College of Business and Economics**Supervisor:** Dr. Ahmed Abdel-Maksoud**Presenters:** Yousif Ahmed      Ahmad Alkassem      Mahmoud Yacoub**Abstract:**

The United Nations (UN) happiness stresses a systematic holistic approach in capturing nations' happiness, and the inclusion of environmental sustainability measures (ESM) in measuring nation's happiness. The UAE government initiated 'Happiness' as a strategic initiative, in 2016, at national level. Although UAE government has put environmental sustainability as a strategic priority long before the adoption of UN agenda; ESM are yet discarded in capturing national happiness in UAE. This study aims at filling this measurement gap by: a) identifying relevant literature-based ESM; and b) exploring the extent these ESM are disclosed in UAE organizations. The research team adapted an index to measure happiness in UAE; the index is designed to capture the extent measures in three aspects (social, environmental, and economical) are disclosed in UAE

organizations. Data were collected in 2016 from 61 cross-industry organizations listed in Dubai Stock Exchange (DSE).

Surprisingly, our findings indicate very low extent of disclosure across social and environmental aspects. Our findings are alarming and merits utmost attention from the UAE's National Program for Happiness and Positivity. This study bears a particular theoretical and practical importance to UAE government as it contributes in filling the existing gap in the measurement of happiness at nation level. This study is timely in that it responds to recent international calls to expand research on measurement of happiness, in particular, environmental sustainability measures. It is also timely and relevant to UAE government which promotes nation's happiness as a strategic priority.

**Ref. No#22**

**A novel and innovative hair test to determine glucocorticoid levels in racing camels for use in assessment of doping, health and disease**

**Institution:** United Arab Emirates University

**College:** College of Science

**Supervisor:** Dr. Iltaf Shah

**Presenters:** Mariam Abdullah V. Sheikh      Fatima Alhumairi

**Abstract:**

The aim of this project was to develop and validate a new test for the analysis of glucocorticoids in camel hair and to use the new test to analyze hair samples from a variety of camel breeds in sports and racing applications. These findings could be of importance when evaluating racing camels for suspected doping offenses or for injury and disease control. Camel hair samples were collected from 30 non-racing dromedary camels along with 3 racing camels in Al-Ain, UAE and were decontaminated, pulverized, sonicated, and extracted prior to analysis. A liquid chromatographic–mass spectrometric method was employed to determine the levels of glucocorticoids in the hair samples. The 4 drugs of interest, namely hydrocortisone, dexamethasone, flumethasone and methylprednisolone, and an internal standard were quantified in camel hair samples. All 4 of the glucocorticoids were detected in camel hair samples with concentrations ranging between 31 and 935 pg/mg for hydrocortisone, 8–59 pg/mg for dexamethasone, 0.7–1034 pg/mg for flumethasone and 5–66 pg/mg for methylprednisolone in non-racing camels.

One of the racing camels displayed high concentrations of hydrocortisone (1130 pg/mg), flumethasone (2576 pg/mg), methylprednisone (1156 pg/mg) and dexamethasone (29 pg/mg). The authors believe this is the first report of a test for corticosteroids in camel hair. The new test has been validated according to Food and Drug Administration (FDA) guidelines. This new hair test could be useful for further studies in doping control, toxicological studies, pharmacological studies and other clinical applications in camel health, injury, and disease.

**Ref. No#23**

**The impact of perceived grading leniency and discrepancy on student evaluations of teaching: The case of United Arab Emirates University**

**Institution:** United Arab Emirates University

**College:** College of Business and Economics

**Supervisor:** Dr. Younes Hamdouch

**Presenters:** Abdalrahman S. Ghazal      Ahmad Alhussaini

**Abstract:**

Student evaluations of teaching (SET) are widespread and a common tool for evaluating faculty. Many educators believe that SET are affected, or biased, by a number of factors unrelated to teaching performance. The aim of this research project is to examine the impact of perceived grading leniency and grade discrepancy on various dimensions of SET. An SET instrument was designed and distributed to more than 500 UAEU undergraduate students enrolled in the fall semester of the 2017-2018 academic year. To analyze the association between grade discrepancy and all key dimensions of SET, we used multilevel regression (student-level; class level) to examine variation in SET both within and across classes. Findings from the study will assist UAEU in designing an effective SET instrument to reduce the effects of bias factors in the evaluation of faculty teaching.

**Ref. No#24**

**Synthesis and characterization of perovskite materials for solar cells applications**

**Institution:** United Arab Emirates University      **College:** College of science

**Supervisor:** Dr. Naser Qamhieh, Dr. Adel Najar

**Presenters:** Basem Ehab Abdelaziz      Ameen Mansour      Ibrahim Alghoul

**Abstract:**

The synthesis of a new perovskite based on lead halide perovskites (CH<sub>3</sub>NH<sub>3</sub>)<sub>2</sub>PbI<sub>2</sub> is reported. Simple precursors such as PbI<sub>2</sub> and CH<sub>3</sub>NH<sub>3</sub>Cl are used to synthesize this material under ambient conditions. The morphology, structure, optical gap of this new perovskite are investigated using SEM couples with EDX, X-ray diffraction, and UV/Vis measurements, respectively. Then a stability study will be presented, which carried by measuring the absorption coefficient after exposing the perovskite to air for different time intervals. This organic-inorganic perovskites is receiving the interest of researchers due to its various optoelectronic applications.

**Ref. No#25**

**SDN Assissted Approach for Secure Health Care Monitoring**

**Institution:** United Arab Emirates University      **College:** College of IT

**Supervisor:** Dr. Ezedin Barka

**Presenters:** Alia Ahmed Alkaabi      Ashjan AlAmeri

**Abstract:**

Wireless body area networks (WBAN) has been considered as an important enabling technology for supporting various telehealth applications such as remote patient monitoring and robotic surgery. Thus, it is very critical to ensure the security and the privacy of the gathered patient's physiological signs, such as heart rate, blood glucose level, blood pressure, as well as the and environmental signs, such as the temperature and the humidity in the surrounding areas. However, most of the existing security solutions for BANs focus on using encryption

techniques to secure the data transmission or provide authentication, which generally introduce significant amount of additional computational and communication overhead. In this paper, we propose a novel architecture that integrate the use of the new networking paradigm, known as software-defined network (SDN) to help configure and manage the sensors, as well as the corresponding gateways in BANs, for many patients, and to segregate the sensed information before sending it to the different relevant stake holders. This ensures the security and privacy of the sensed information and restrict the access to the patient's sensors and other IoT devices, to a need to know bases.

**Keywords**—Body Area Network (BAN); Security, Privacy, trust; security; e-Health Monitoring.

#### **Ref. No#26**

##### **The Impact of Uncertainty Shocks on Stock Markets**

**Institution:** United Arab Emirates University

**College:** College of Business and Economics

**Supervisor:** Dr. Chiraz Labidi

**Presenters:** Radina Rashed Alketbi      Mohammad K. Bayzid

#### **Abstract:**

The objective of this paper is to build bridges between financial markets and political economy and shed more light on frequency dynamics of the impact of policy uncertainty shocks on stock market returns. More specifically, we propose to use a novel framework to assess the degree of connectedness between policy uncertainty and stock market return. Using a sample that covers developed, emerging and frontier stock markets, our approach allows to decompose the aggregate effect of uncertainty shocks on international markets into long-, medium- and short-term impacts and to understand to what extent shocks to policy uncertainty impact stock markets at different frequencies with different strength.

#### **Ref. No#27**

##### **Student Evaluation of Teaching at the UAEU - the students perspective**

**Institution:** United Arab Emirates University

**College:** College of Business and Economics

**Supervisor:** Dr. Youssef Boulaksil

**Presenters:** Younes Benhammouda      Abdulla Al Amoodi      Kholoud Mohamed

Abdallah Abu Nahla

#### **Abstract:**

Student evaluations of teaching (SET) are widely used at universities to assess the instructor's teaching performance, teaching effectiveness, and students' satisfaction. Although the reliability and validity of SETs received a lot of attention in the literature, there is little research that examines how students perceive these evaluations. This paper studies the students' perspective of SET questionnaires. We design a survey and distribute it to more than 300 UAEU students to understand the drivers and barriers of filling the SET questionnaires, and which

factors play a role in the students evaluations, including those other than teaching effectiveness.

**Ref. No#28**

**Short and Medium Term Electric Load Forecasting Using Deep Learning: Comparison with Machine Learning Benchmark Models**

**Institution:** United Arab Emirates University

**College:** College of IT

**Supervisor:** Dr. Salah Bouktif

**Presenters:** Shamsa Rashed Aleissae

**Abstract:**

With the development of smart grids, accurate electric load forecasting has become increasingly important as it can help power companies for better load scheduling and reduce excessive electricity production [1]. Load pattern are inherently non-linear in nature and cannot be modeled easily using linear models. Thus, various machine-learning techniques have been proposed to better forecast electric load [2]. However, little is known about the ability of generalization of the derived forecasting models. Their accuracy drops dramatically when they are used on new energy data [3]. Recently, long short-term memory (LSTM), a deep neural network, was used in other fields and greatly outperformed traditional machine learning methods [4].

This work presents an approach that uses LSTM based neural network to construct a forecasting model for short to medium term aggregate load forecasting. A methodology for building, enhancing, and validating the proposed load forecasting is proposed. In particular, a number of linear and non-linear machine learning models are built and compared to the proposed model. Using France Metropolitan's electricity energy consumption data as a case study, the short and medium term monthly load were forecasted with various models and configurations. In addition, weather related data including temperature, humidity and wind speed were used as exogenous inputs.

The goal is to promote the accuracy and stability of respectively, the short-and the medium-term monthly load forecasting using a LSTM-based deep learning approach. The obtained results show that LSTM based forecasting has shown very high accuracy in short-term forecast remain accurate for the medium term. Moreover, our model outperformed the best machine learning model optimized with hyper-parameters tuning.

**Ref. No#29**

**ANALYSIS OF MACHINE LEARNING USAGE FOR BUILDING ENERGY CONSUMPTION: IDENTIFYING THE BEST PRACTICES FOR DESIGNING EFFECTIVE WORKFLOWS**

**Institution:** United Arab Emirates University

**College:** College of IT

**Supervisor:** Dr. Salah Bouktif

**Presenters:** Noura Humaid Albalooshi

**Abstract:**

With the availability of large amount of energy data and increased computational power, data driven

machine-learning approaches are gaining rapid prominence to identify energy consumption opportunities and best practices toward cost-effective energy management [1]. Energy efficiency in buildings is a growing policy priority for many countries and application of machine learning represents a powerful opportunity to use this data to accurately model, understand and predict future energy use [2].

Problems in energy domain do not have generic machine learning solution, the workflow and algorithms are tailored for the given problem at hand. There are several well-known, robust and tested libraries and APIs that provide numerous off-the-shelf machine learning algorithms, however they are provided in a fairly standard way, and there is always some room for improvement. As more and more energy consumption approaches have started using these algorithms, there is a need to identify and formulate the effective practices for data preparation, algorithm selection, evaluation, and optimization tasks [3].

This paper thus provides a literature review on the recent applications of machine learning based energy usage prediction, clustering and classification models in buildings over the last several years with the aim of identifying the important practices and approaches to make effective use of off-the-shelf machine learning algorithms [1,4,5,6,7]. The conclusions drawn in this review will facilitate to deliver reliably a good solution and speed up machine learning projects. Based on the review, existing research gaps are identified and major challenges and opportunities are identified and discussed.

#### **Ref. No#30**

#### **Blockchain Performance Over The UAEU Campus**

**Institution:** United Arab Emirates University

**College:** College of IT

**Supervisor:** Dr. Leila Ismail

**Presenters:** Heba Zuhair Hameed

Manayer Mohamed Al Hammadi

Mahra Rashed Al Shamsi

Nourah Rashed Aldhanhani

#### **Abstract:**

Blockchain is an emerging technology which is based on decentralized data management, where transactions can be done between parties, without the need of a third party for organizing and controlling the transactions. It came into existence following the economic crisis in 2008 and the call for crypto-currency or digital bitcoins. It is a new potential economic model, giving rise to the Internet of Transactions putting end-to-end users in direct communications. Blockchain is a promising technology for many applications domains such as digital identity and security, health and pharmaceuticals, financial sectors, insurance, etc.

In this research, we investigate the deployment of the blockchain technology platform in the United Arab Emirates University campus, and analyze the platform performance with varying parameters of number of users, transactions, data size, etc.

Ref. No#31

### التفريق بين الزوجين للضرر في قانون الأحوال الشخصية الإماراتي

**Institution:** United Arab Emirates University

**College:** College of Law

**Supervisor:** Ms. Aysha Al Kwaiti

**Presenters:** Afra Abduljabbar A. Almheiri

#### ملخص البحث:

الأُسرة عمود المجتمع وأساسها الصلْب، بتماسكها يقوى المجتمع وبتشتتها يختل نظام البشرية، فالزوجان يجب عليهما دائماً أن يتحليا بالصبر والقوة من أجل بناء أسرة متماسكة يملؤها التسامح والحب المتبادل، فإن حل بهاذين الزوجين ما يعيقهما فعليهما بالاستشارة، إذا لم يتعاملوا مع العائق بأنفسهم، فعدم وجود حل للوفاق يتوجب أن يُحل بالقضاء .

فهذا البحث يتحدث عن التفريق بينهما للضرر .

وماهي الأسباب التي نص عليها القانون والتي يستطيع من خلالها التفريق بالضرر فيها.

Ref. No#32

### الشركات ذات التنظيم الخاص في القانون التجاري لدولة الإمارات العربية المتحدة: شركة الشخص الواحد

**Institution:** University of Jazeera

**College:** College of Law

**Supervisor:** -

**Presenters:** Omar M. Thani Al Mari

#### ملخص البحث:

الحمد لله رب العالمين والصلاة والسلام على أشرف الانبياء والمرسلين نبينا محمد وعلى آله وصحبه أجمعين، ارتبط مفهوم الشركة في القانون الخاص بدولة الإمارات العربية المتحدة على أساس أن يكون هناك شريكان فأكثر في عملية التأسيس. وقد صنف المشرع الإماراتي العدد لكل شركة من تلك الشركات التي يتم تأسيسها، فشركة التضامن تشترط أن يكون جميع الشركاء فيها من مواطني الدولة، وأما شركات المساهمة العامة فإذا تملكها الدولة أو تملك شخص عام حصة من الشركة فإنه يتم تحويلها إلى المساهمة العامة أو المساهمة الخاصة. وأما الشركات ذات المسؤولية المحدودة فإنها تتكون من شريكين ولا يزيد عددهم عن خمسين ، ونرى أن الصورة التي امتزجت في الفكر الخاص بتأسيس الشركات قد تغيرت طبقاً إلى القانون رقم 2 لسنة 2015 للشركات الخاصة ، الذي تطرق فيه المشرع الإماراتي إلى أنه يمكن للفرد أن يقوم بتأسيس شركة من شخص واحد دون الحاجة إلى شركاء، وهذا يتعاكس مع مفهوم كلمة شركاء أو شريك، حيث إن المصطلح المذكور أنفاً يتطلب عدداً أكثر من واحد، وقد ذكر الله سبحانه وتعالى كلمات الشركاء في القرآن حيث قال تعالى: قَالَ لَقَدْ ظَلَمَكَ بِسُؤَالِ نَعَجْتِكِ إِلَىٰ نَعَاجِهِ ۗ وَإِنَّ كَثِيرًا مِّنَ الْخُلَطَاءِ لِيَبْغِي بَعْضُهُمْ عَلَىٰ بَعْضٍ إِلَّا الَّذِينَ آمَنُوا وَعَمِلُوا الصَّالِحَاتِ وَقَلِيلٌ مَّا هُمْ ۗ وَظَنَّ دَاوُودُ أَنَّمَا فَتَنَّاهُ فَاسْتَغْفَرَ رَبَّهُ وَحَرَّ زَاكِيًا وَاتَّابَ ﴿٢٤﴾ - سورة ص ( والخلطاء هنا هم الشركاء). ولا شك أن هذا التغيير أتى استجابة لمطالبات التطورات العالمية التي طرأت على العمليات التجارية على مستوى العالم .

وفي عام 1897 م، وبالتحديد في إنجلترا حدثت قصة كان لها أثر كبير في ظهور الشكل الخاص بشركة الشخص الواحد، حيث كان هناك رجل يدعى سالمون(2)، وكان هذا الرجل تاجراً "للجلود" وأراد أن ينمي ويطور أعماله التجارية ولكن دون أن يكون معه شركاء، ولكن النظام في ذلك الوقت لا يسمح له بتأسيس شركة من شخص واحد ، لذلك لجأ إلى القيام بإشراك زوجته وأبنائه في هذا التأسيس، وهذا ما أدى إلى تأسيس الشركة بناء على استيفائها للشروط ، وبعد مدة زمنية اضطر سالمون إلى الاقتراض ورهن موجودات الشركة لشخص مقابل دين، ولكنه لم يستطع الوفاء به، فإراد المقرض تصفية الشركة للحصول على دينه وذلك بعد الوصول إلى القضاء، فأمر القاضي بتصفية هذه الشركة، ولكن تبين أن موجودات الشركة لا تفي

الإدين هذا المقرض، بالإضافة إلى أن هناك دائنين غيره لن يستوفوا أموالهم، فحكم القضاء أن تصرف سالمون هذا فيه احتيال ونصب، إذ كيف يقوم بالافتراض مع علمه بأنه ليس لديه ما يوفي به الديون، بالإضافة إلى قيامه بإدارة الشركة وحده وهذا يعتبر مخالفاً للأنظمة. وهذا التصرف منه يعتبر تهرباً من المسؤولية لأنه يريد بهذا أن تكون المسؤولية محدودة برأس المال، ونظراً لقصد هذا وجهت إليه مسؤولية تضامنية ويتحمل ديون الشركة حتى من ماله الخاص، وبعدها تحولت القضية إلى مجلس اللوردات البريطاني فما إن استطلعوا القضية، حتى أقرروا تصرفه وجعلوا المسؤولية المالية محدودة برأس المال ومن هنا أتت الانطلاقة الحقيقية لشركة الرجل الواحد كما يطلق عليها في القانون الإنجليزي.

### **Ref. No#33**

#### **Effect of different equipment usages on acute and chronic responses for PE students in UAEU**

**Institution:** United Arab Emirates University

**College:** College of Education

**Supervisor:** Dr. Hashem Kilani

**Presenters:** Mouza Mohammed Al Habsi

#### **Abstract:**

##### **Background:**

Physiological responses are a vital part of our ability to respond and adapt to the changes and demands being placed on our bodies various systems as well as the ability to develop and improve our body over time. From acute to chronic exercises allowing us to cope with changes and demands being placed on our bodies various systems more efficiently. The purpose of this research was to investigate the effect of using different machines exercises on acute and chronic responses variables such as heart rate during exercise and recovery period.

##### **Method:**

15 undergraduate students underwent 3 types of testing on three different machines: Treadmill, stationary bike and elliptical machine by random order pre and post one month. They executed 4 minutes of workout on each machine with predetermined intensity level to be almost equal in all running, paddling and cross training. They measured heart rate before, during, immediately after stopping exercise and after 2 and 4 minutes of exercise. Borg scale was used as an indicator for perceived fatigue. They also repeated the same procedure after 4 weeks.

##### **Results:**

Hypnotical results curtailed from a pilot study, were treadmill increases the Heart rate more than cycling and elliptical respectively. Meanwhile, acute responses to all machines depicted the type of energy system utilized. Mostly aerobic energy system was dominant but varied by the elevation of the physiological heart rate recorded.

In conclusion, adaptation responses need to be investigated post one month of training and be compared to the acute responses. It was suggested to use the cross training action to reduce the impact on the joints and to alternate between concentric and eccentric muscle action for efficiency.

### **Ref. No#34**

#### **Reusability of Abandoned Offshore Platforms for Habitation and Tourism**

**Institution:** Abu Dhabi Polytechnic

**College:** College of Engineering

**Supervisor:** Dr. Khalid Hussain

**Presenters:** Khaled Sultan Alremeithi      Khaled Mohamed Alghaithi      Mohamed Yousef Al Naqbi

Mohamed Khalid AlYafei

**Abstract:**

Offshore drilling rigs usually operate for 30–40 years. Their structures can weigh up to 500,000 tones with the average cost of approximately \$650 million. With passing time, hydrocarbon reserves are depleting, and many hundreds of offshore oil and gas rigs are already approaching the end of their productive lives. Offshore platforms cannot be disposed of at sea or only be left to rust and fall to pieces, as they risk damaging fragile marine ecosystems.

We are investing much money in removing somehow and returning these superstructures to shore for recycling. Instead of bringing these platforms to the shore and recycle them, we can take advantage of an abandoned oil rig and reuse the structure, transforming it into a vibrant and commercially viable destination that can generate all of its power from renewable sources. The Oil Rig Resort will provide unparalleled views of the sea and offers many amenities including interaction with the surrounding ocean – boating, diving and other water sports. In this research we are going to present the feasibility and market analysis about the reusability of abandoned offshore platforms for habitation and tourism.

**Ref. No#35**

**Use of oil drilling technology to extract water from spaces near earth asteroids**

**Institution:** Abu Dhabi Polytechnic

**College:** College of Petroleum Engineering

**Supervisor:** Mr. Khalid Hussain

**Presenters:** Mohammed Ebrahim Alawadhi      Salim Abdalla Aldarmaki      Omar Essam Al Ali

Nayef Mohammed Saleh

**Abstract:**

Water well drilling tools helped to drill the first oil well. Now the Oil and Gas industries are using state of the art technology to extract oil from difficult reservoirs. We can use oil industry technology to drill for water in Space. The human body consists of two-thirds water and approximately an octillion water molecules flow into our bodies every day. That's why it is essential for us to consume an adequate quantity of water, as well as oxygen and food, on a daily basis to sustain life. Without water, the average person lives approximately three days.

Without oxygen, permanent brain damage can occur within three minutes. As water and oxygen are the requirements of life, during space travel, it would be impractical to completely stock the spaceship with oxygen or water for long periods of time. A sustainable source of water and oxygen is needed to sustain life in space. Scientists have discovered water in near-earth asteroids, and we can extract this water from near-earth asteroids by smart oil drilling applications. Water from asteroids can provide oxygen in space by the electrolysis of water and drinkable water after proper purification.

**Ref. No#36****Water Sample Return Payload****Institution:** Abu Dhabi Polytechnic**College:** -**Supervisor:** -**Presenters:** Muzoun Aldhaheri    Khoula Alkindi    Shama Zayed

Asma Alameri

**Abstract:**

We are looking at designing a water sample payload unit. The advantage of our design is the ability of getting a sample by preventing personnel having to go into the water, either physically or via a boat. This would ensure their safety regarding the potential contact with a dangerous fluid. Moreover, it can be used to take a sample from a body of water that is difficult to access possibly off a major road, in a sandy environment or a forest. Also, the need to go into a body of water such as a mine spill dam. The goal would be to have a UAV that carries the payload unit and collects the water sample automatically.

The majority of water/fluid samples are taken manually. These can be as simple as a test tube placed into the fluid or having to use a long stick with the container attached. To get to other exact location you might have to wade into the water or even get into a boat. These last two increase the risk of exposure to the potential toxic bodies or materials that you might test for. Our goal with the UAV is to mitigate and potentially eliminate the possibility of a person being injured.

For companies that regularly carry out samples in areas that carry a higher risk then the use of a UAV would be highly desirable. For instance, a mining company that needs to analyze several spill dams that are dangerous to enter or get close to the surface for a manual test can be easily accomplished with a UAV. The use of a boat for instance would take a long time, including the travel time, and clean up afterwards. The UAV has the potential to increase the speed and range to obtain water samples with the reduction of cost, effort, and risk reduction to personnel.

**Ref. No#37****Subsurface structural mapping using gravity data of Al-Ain region, Abu Dhabi Emirate, UAE****Institution:** United Arab Emirates University**College:** College of Science**Supervisor:** Dr. Hakim Saibi**Presenters:** Falah Sheikh Mohamed    Mohamed Jowhar    Haitham Abdulwadood Abdulraoof**Abstract:**

A high resolution microgravity survey has been conducted for the Al-Ain region of the United Arab Emirates (UAE) to identify and compare subsurface geological features to previous studies of known surface geological

structures. The study area is located in the eastern part of UAE near the Oman border. Microgravity data points were collected at more than 450 stations using the Scintrex CG-6 gravimeter, covering Al-Ain city where accessibility was possible.

The results of the gravity measurements helped explain the subsurface density distributions beneath the study area. The Bouguer gravity map shows gravity values ranging from -22 mgal to 8 mgal. High Bouguer gravity is observed in the eastern and western parts of the study area and shows good agreement with the location of known thrust faults. Gravity gradient derivative methods (tilt derivative, horizontal gradient and analytic signal) were applied to the corrected Bouguer gravity data to enhance visibility of subsurface geological features of interest. The applied gravity gradient derivative methods to the Bouguer gravity data shows an interpreted direction of subsurface structures striking in the NNE-SSW and E-W directions. The strike directions are likely related to tectonic phases that have impacted the study area. The power spectrum of gravity data shows two geological layers – a deeper layer with depth ranging from 2 km to 6 km and a shallower layer with depth from 0.5 km to 2 km.

**Keywords:** Gravity, Bouguer anomaly, Structure, Geology, Al-Ain.

**Ref. No#38**

**"Factors Determining the Job Seeking Attitudes of the Prospective UAE University Graduates Towards Private Sector Employment "**

**Institution:** United Arab Emirates University

**College:** College of Business

**Supervisor:** Dr. MD Shahadut Hossain

**Presenters:** Muaaz Jamous

**Abstract:**

So far, UAE government's Emiratisation efforts have achieved minimal success because of very low number of Emiratis entering into the private sector employment. Research shows that just 43,000 (around 2%) of the 2.2 million private sector jobs in the country are occupied by UAE citizens. These findings are indicative of lack of integration of the young Emiratis into the private sector. Very low rate of Emirati integration into the private sector is definitely a major obstacle to achieving UAE government's Emiratisation goal. There are multifarious causes for low Emirati participation in the private sector.

This research aims to explore different aspects of perceived negative attitudes towards private sector employment among UAE University students. More specifically, it will study the job seeking attitudes and the underlying causes of such attitudes towards private sector career among prospective Emirati graduates of the UAE University. The findings of this study will help policy makers at government levels to frame effective private sector policies to attract future Emirati graduates in seeking private sector jobs. Moreover, the findings will help the post-secondary institutions to promote awareness among future Emirati graduates about the importance and benefits of working in the private sector.

**Ref. No#39****Systematic Review & Meta-analysis of Major Depression & Suicidal Ideation among University****Institution:** United Arab Emirates University**College:** College of Science**Supervisor:** Dr. Abdella Hamid**Presenters:** Nida Mohammad Fayyaz      Rahma Beg**Abstract:**

According to the National Institute of Mental Health, in a survey done in 2009, 30% of university students admitted to feeling so depressed that it was difficult to function. University students in Middle Eastern countries are not an exception to Depression and other related symptoms, such as low mood and suicidal thoughts. Evidence reveals that university students show symptoms of Major Depression and Suicidal Ideation in most Middle Eastern Countries, such as Saudi Arabia, United Arab Emirates, Iran, Turkey and Pakistan. Major Depression, also known as unipolar or major depressive disorder, is characterized by a feeling of continuous sadness and dejection. Along with low mood, persistent thoughts of suicide are also a common symptom of Major Depression.

**Purpose:**

To explore the prevalence of Major Depression and Suicidal Ideation among university students in the Middle Eastern countries. Regardless of the major, higher education level or gender, we are looking to analyze the existing research available to determine the extent of Major Depression, Depressive Symptoms and Suicidal thoughts in students enrolled in Middle Eastern universities.

**Data Sources and Study:**

Selection A systematic search of the United Arab Emirates University Library, PubMed, PsycArticles, PsycINFO databases will be done to conduct the meta-analysis. The systematic review and meta-analysis will be on articles published before February 13, 2018. Studies limited to the prevalence of Major Depression, Depressive Symptoms and Suicidal Ideation in the Middle Eastern countries will be included. The studies that will be included are published in peer reviewed literature. It is also important to mention that we would only be considering research papers published in the English Language. In addition to that, we are inclined to review literature published only within the last two decades, from 1980 to 2018.

**Ref. No#40****Effect of Dehydration On Microglia, Astroglia and Growth Factor's levels in Cortex, Cerebellum and Hippocampus of the Arabian Camel****Institution:** United Arab Emirates University**College:** College of Medicine and Health Sciences**Supervisor:** Mrs.Naheed Amir, Mr.Mahmoud A. Ali, Prof.Abdu Adem.**Presenters:** Maitha Khamis Alnuaimi

## **Abstract:**

### **Introduction:**

The Camels can tolerate loss of water corresponding to 30% of their body weight, whereas other mammals die from circulatory failure when water loss reaches 12% of their body weight. We investigated the effect of severe dehydration on microglia, astroglia, and growth factors in cortex, cerebellum and hippocampus.

### **Research Design and Method:**

Camels were divided into three groups; Control (n=5), Dehydrated (n=8) and Rehydrated (n=6). All animals were kept in a shaded corral during the hot summer. All camels were allowed to feed on dry grass ad libitum and water was supplied only to the control group, while the dehydrated and rehydrated camels were not allowed to access water for 20 days. On day 21, Six dehydrated camels were allowed free access to water for 72 hrs. At the end of experiment all camels were slaughtered; cortex, cerebellum and hippocampus were collected for total protein extraction. Astrocytes (GFAP), microglia (IBA-1) and growth factors (IGF-1, NGF- $\beta$ , and TGF- $\beta$ ) were measured by ELISA.

## **Ref. No#41**

### **Production of Activated Carbon from Date Seeds**

**Institution:** United Arab Emirates University

**College:** College of Engineering

**Supervisor:** Dr.Naeema Al-Darmaki

**Presenters:** Samah Hassan Al-Dhanhani

Haliema Rashed Al-Zeyoudi

Salama Hareb Al-Badi

## **Abstract:**

Our graduation project is about production of activated carbon from date seeds. The palm tree is one of the most plentiful and important trees. It is plentiful, locally available and effective material that could be used as an adsorbent for the removal of different pollutants from aqueous solution. Because of that studies have shown that date seeds-based adsorbents are the most hopeful adsorbent for removing unwanted materials. The chemical composition of the date seeds consist of three main components, cellulose, hemicellulose and lignin. Alongside these other minor constituents are oil and protein. There is an incredibly large amount of date seeds in UAE which is economically viable for the production of activated carbon. The available activated carbon is still considered expensive due to the use of nonrenewable source of material. Now a days the adsorption systems including activated carbon considered as one of the top useful technologies in removing both organic and inorganic trace contaminates.

Activated carbon is a form of carbon that has been processed to make it extremely porous and thus to have a very large surface area available for adsorption and chemical reactions. Activated carbon is produced from carbonaceous source materials like nutshells, wood, and coal. Carbon adsorption has numerous applications in removing pollutants such as drinking water filtration. Activated carbon filters are efficient to remove certain organics such as, unwanted taste, micro pollutants, chlorine and fluorine, from drinking water or wastewater.

Installation costs are moderate but additional technical equipment is required. Operating costs are usually limited

to filter replacement. Depending on the type and concentration of the contaminant being removed, some carbon filters may require special hazardous waste handling and disposal, which can be costly. The conversion of waste materials and agriculture byproducts, into activated carbon would add considerable economic value, help reduce the cost of waste disposal and most importantly provide potentially inexpensive products. Finally, this project will involve preparing a PFD and designing the main units, process simulation, and carrying out a HAZOP study and economical assessment

## Information Literacy (GEIL101) Poster Presentations

### **Ref. NO#43**

#### **“How did UAE secondary schools’ teachers activate technology in their teaching strategies in (2010-2017)”?**

**Institution:** United Arab Emirates University

**College:** University College

**Supervisor:** Maria agata szczerbi

**Presenters:** Ohoud khamis alkaabi      Amal abdullatif alblooshi

#### **Abstract:**

Education is an important point that people should care about. Thus it’s the foundation for everything. Therefore, people should improve it by trying to use many new, different strategies in teaching. For example, they should try to activate technology in teaching. In addition, teachers and managers should care about academic plans and curriculums and try to develop and improve the year-by-year. Taking all of these into consideration, our research question is: “How did UAE secondary schools’ teachers activate technology in their teaching strategies in (2010-2017)”?

We want to research this topic to know if applying technology in education is useful and if students prefer using technology while studying or not. Moreover, we want to know what strategies teachers used to teach their student.

From the results of our research, survey and interviews we concluded that most teachers actually applied technology in their teaching. They also thought that this was easier and better from using traditional ways in teaching. Similarly, students preferred using the 21-century techniques and tools to learn as it shows in our results. The combination of student’s motivation and their interaction with technology brings out more fun of learning.

### **Ref. NO#44**

#### **The Ugly Side of Beauty: Animal Testing for Cosmetic Products**

**Institution:** United Arab Emirates University

**College:** University College

**Supervisor:** Dr. Marwan Fayyad

**Presenters:** Huda Mohammed Alhashmi

Fatima Hasan Alblooshi

Rauda Saeed Al Dhaheri

Mahra Saeed Al Blooshi

**Abstract:**

Nowadays, animals are burned, crippled, poisoned and abused in the labs every year. Animal testing includes any scientific experiment in which a live animal is forced to undergo something that is likely to cause them pain, suffering, distress or lasting harm. This research focused on the farm of animal experiments and ways to solve this phenomenon.

To begin with, it's unethical to sentence 100 million thinking, feeling animals to live in a laboratory cage and intentionally cause them pain, loneliness and fear. It's also bad science. The food and drug administration reports that 92 out of every 100 drugs that pass animal tests fail in humans which is wasteful. Animal experiments prolong the suffering of people waiting for effective cures by misleading experiments and squandering precious money, time, and resources that could have been spent on human – relevant research. It's archaic, forward – thinking scientist have developed human, modern, and effective non-animal methods, including human –based micro dosing, in vitro technology, human patient similarities, and sophisticated computer modeling, that are cheaper, faster, and more accurate than animal tests. It's unnecessary, the world doesn't need another eyeliner, hand soap, food ingredient, drug for erectile dysfunction, or pesticide, so badly it should come at the expense of animal's lives.

In addition, well-known companies such as the Body Shop, started campaigns to Fight animal testing. The survey results showed that most people know about animal testing and they are ready to protest against it. We aim to completely stop these kinds of experiments to support animal rights.

**Ref. NO#45**

**People of Determination**

**Institution:** United Arab Emirates University

**College:** University College

**Supervisor:** Dr. Marwan Fayyad

**Presenters:** Sheikha Mujahed Alameri

Maitha Mohammed

Shrouq Hussein

**Abstract:**

People of determination are very important and they play a big role in communities. Since the development in education, our country and other countries want to merge people of determination with the public students. We face in our life those groups of people that have difficulties and we want to see how they get along with the UAEU environment and how they react and communicate with others individuals and community. That why we choose this topic to talk and search about. Our research question is "At UAEU, do people of determination practice a normal life like the general public? ".

During our research, we use different types of resource to answer our research question such as: books,



sugar level and cholesterol. But while we were searching in depth we found out that medical sensors can only measure the blood pressure and heart rate of the driver.

This sensor would be able to sense emergency conditions and take further measures on dealing with this situation, for instance a beeping sound that the car-implemented sensor will automatically start to notify the driver and send an emergency signal to the nearest healthcare and provide them the location and patient's details. In addition, we wanted to expand our project's capabilities, so it can reach the optimum level of satisfaction. To achieve that we interviewed Dr. Mohammed Adel Serhani and he gave us the idea of adding ECG and EEG sensors for more accurate readings.

**Ref. NO#48**

**Prevention of Childhood Obesity Using Video Games**

**Institution:** United Arab Emirates University

**College:** University College

**Supervisor:** Dr. Khalid M. Hamdan

**Presenters:** Sarah Hassan Nasreddine      Atma Mohammad Al Dhaheri

**Abstract:**

Nowadays, the percentage of obese children in UAE is increasing steadily due to several reasons, such as, fast food, lack of exercise, and lack of awareness among parents and children. The purpose of our research is to provide solutions to this problem and build a better future for Emirati youth. We learned from various sources such as experts in this field and lengthy research papers that the solution to childhood obesity is not putting the child through a strict diet that might affect them emotionally and not making the child focus on outer appearance.

In fact, such mental and physical stress will make the problem worse. Instead, we programmed a game that would send meaningful messages to children causing them to make their own perceptions about unhealthy eating. To win the game physical activity is required making the child move while enjoying the game.

**Ref. NO#49**

**Efficient hydrogen production using solar and nuclear energy, as alternative for Abu Dhabi's reliance on natural gas and oil?**

**Institution:** United Arab Emirates University

**College:** University College

**Supervisor:** Dr. Haydar Hassan

**Presenters:** Yassine Elmahi      Khaled S. Rashed

Sirak Fisseha

**Abstract:**

In the globalized world discussing about energy security and innovative matters that improve and out danger the living style are considered as prior things. That is why we choose our topic to deal with the energy and environment. And trying to secure the ceasing non-renewable energy like petroleum and oil. Our topic clearly

emphasizes the production of green energy with minimum power and time in Abu Dhabi. And getting unlimited energy with few manpower and recent technology. During the process of our research we learned a lot of things about various kinds of energy and how to cooperate as a team.

**Ref. NO#50**

**The outcomes of the Space Industry on the future UAE economy.**

**Institution:** United Arab Emirates University

**College:** University Colleges

**Supervisor:** Michael Flemming

**Presenters:** Kanna Jaber

Shaikha Khalifa Alkaabi

Alia Sultan Alzaidi

Latifa Walid Aljneibi

**Abstract:**

With this being a year of Innovation with Technology at the university, our team wants to investigate the impact the new Space Industry will have on future the UAE economy. Space technologies are important tools for the scientific/economic progress of nations. It is leading high technology sector that creates huge economic activity improving the quality of life of our citizens and it promotes a renewed interest in science.

In the wonderful words of the Vice President and Prime Minister of the United Arab Emirates, “One man asked me how much it cost, I told him it is not a cost, it is an investment” (Sheikh Mohammed bin Rashid,2015).

**Ref. NO#51**

**Awareness of Healthy Food Options for Preventing Diabetes at UAE University Food Outlets**

**Institution:** United Arab Emirates University

**College:** University College

**Supervisor:** Paul Morley

**Presenters:** Mahmoud Elhussin

Hamad Alsharaifi

**Abstract:**

19% of the UAE population have diabetes with 18.6% being at the pre-diabetes stage (Dubai Health Authority, 2017). This is a growing issue in the UAE. Our research project aimed at identifying current awareness of potential food sources that may lead to the development of diabetes in UAEU students.

**Ref. NO#52**

**Magnetic Levitation**

**Institution:** United Arab Emirates University

**College:** University College

**Supervisor:** Paul Morley

**Presenters:** Fahed Muaid Assi Alateibi

**Abstract:**

We, as people, always tend to develop and reach the goal of an “Easier Life”. We could be traveling on our way to reach that goal, but we must question what we are traveling with. Cars that pollute the environment along the way. Trains, noisy and continually late. Maybe aircrafts but are you really willing to sit and wait long hours before and during your flight? All these brilliant ideas are missing the touch of MagLev. Magnetic Levitation is an electrified transportation system in which minimizes the use of petroleum, so it’s environmentally cleaner and much faster than traditional forms of transportation.

In Maglev trains, the trains do not make contact with the track which gives faster acceleration, often bringing the speed up to 500kmh. Moreover, the system is energy efficient, it travels for long distances using about half the energy per passenger of a typical commercial aircraft. My presentation will outline the advantages of magnetic levitation transportation systems for the UAE.

**Ref. NO#53**

**Investigation of the Effect of manufacturing on Pollution in the UAE and ways to resolve the problem.**

**Institution:** United Arab Emirates University

**College:** University College

**Supervisor:** Dr. Haydar Hassan

**Presenters:** Khalifa Alshaiba      Mohammed Alkamali

Rashed Jassem

**Abstract:**

In this research we analyzed the main problems that affected the pollution in UAE then we searched for solution from various people and various techniques (interview, survey ...etc) We chose this topic because it had huge impact on people these days and as world grows and manufacturing rises we should also be aware of their consequences and try to solve this situation efficiently.

**Ref. NO#54**

**What are the effects of chemical pollutants on the environment in the UAE?**

**Institution:** United Arab Emirates University

**College:** University College

**Supervisor:** Dr. Ahmed Abubakar

**Presenters:** Shouq Alderei      Maryam Mohammed

Mahra Alqamzi      Nouf Aldhaheri

**Abstract:**

The effect of chemical and petroleum pollutants has been a topic of discussion in many parts of the world. In this project we investigate whether people are aware of these pollutants, their impact to the environment and how to try to minimize their effect on the environment in the United Arab Emirates. During the research process people were asked various questions on how to understand, avoid contact and alternative solutions to the use of chemical pollutants. The result analysis will highlight the views of various stake holders in the implementation of solutions to avoid the harmful effects of chemical pollutants.

**Ref. NO#55**

**Educational System in UAE Impact of creativity and innovation**

**Institution:** United Arab Emirates University

**College:** University College

**Supervisor:** Dr. Ahmed Abubakar

**Presenters:** Nouf Hamden      Rouda Mohammad

Marwa Hassan      Aynoor Omar

**Abstract:**

Creativity and innovation are widely topics of discussion in schools, universities and even conferences. In this research we try to make people aware what is creativity and innovation and its importance's leading to all of these modern innovations we see today. Also, in this research project we discussed that creativity and innovation existed long time ago and will still be in the future, and that in the UAE there care a lot of activities about creativity and innovation where we even have an Innovation Day. We asked various questions about what people think about creativity and innovation, and the results analysis try to explain what and where our generation will be in terms of creativity and innovation.