جامعة العلوم والتقنية في الفجيرة
UNIVERSITY OF SCIENCE & TECHNOLOGY OF FUJAIRAH

TED MAGAZINE

Does the good outweights the bad?

Achievements of the graduated students.

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THE INTRODUCTION

BY DR. OLA SAMAA SHERIF

It was a challenge for me to write the introductory words for TED magazine, should I write to be useful, fulfilling, and impressive? Then I decided just to be myself, this inspiring spirit that provides positive vibes, writing to my sons and daughters from my deepest soul.

You must follow your dreams... your passion and find the real light that you must follow.

Think with no limits or borders and remember that every slip is to stop.. to think.. to evaluate, then.. to stand up and move on.

One day you will get up to find these four or five years have passed and you are finally facing your new life and start being the "real you"

No impossible, no disappointment. It is only your will and determination.

Take your complete chance to learn... to experiment... to fall into mistakes..... and feel the importance of the real support around you; your instructors and your friends.

During all this, do not forget to enjoy your journey to the maximum, discover your hobbies... draw, play music, write, read..... or whatever you want to do. Share your thoughts, express yourself, and I guarantee that you will find between us who listens and believe in you and your abilities... just START..

DOES THE GOOD OUTWEIGHS THE BAD?

BY ENGINEER MOMEN ODEH

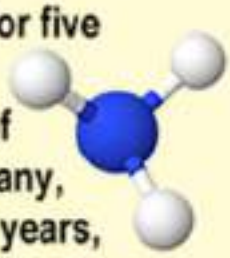
The Nobel Prize in Chemistry in 1918 is arguably the most significant one ever given. For resolving one of the most significant issues that humanity has ever encountered, it was awarded to German scientist Fritz Haber.
Almost 4 billion people's living right now owe their lives for his creation. However, many of his peers chose not to attend his award ceremony, and "The New York Times" published a damning piece about him. He is likely directly or indirectly to blame for the deaths of millions of people, making him one of the most influential and tragic scientists of all time. He has probably had the most impact on the world we live in today.

By weight, oxygen, carbon, and hydrogen make up the majority of elements in a human body, with nitrogen coming in at number four. It plays an important role in amino acids, hemoglobin, DNA and RNA. To put it simply, for all life to exist on earth, nitrogen is necessary.

We get our nitrogen by eating plants directly or by eating animals that eat plants, and plants get nitrogen from the soil.

The problem is that if you farm the same soil year after year, you will eventually deplete the nitrogen levels, making it impossible for healthy plants to grow. Plants are unable to photosynthesize because they do not produce enough chlorophyll. Their leaves become yellow, and they become more vulnerable to pests and disease.

When Fritz Haber got interested in this dilemma in 1904, he worked on it for five years, motivated by pride and competition with another scientist.



In March 1909, Haber succeeded in creating ammonia by placed a sheet of osmium in a pressure chamber. BASF, Germany's largest chemical company, commercialized Haber's process. They opened a factory in Oppau in four years, producing five tons of ammonia per day. People spoke of making bread from the air.

Farmers were able to grow four times as much food with the fertilizer from this industrial process on the same plot of land, and as a result, the Earth's population quadrupled. There's a very good chance that you owe your life to Haber's process. Today, the Earth can support four billion more people than it could without nitrogen fertilizer. In fact, the Haber process is responsible for approximately 50% of the nitrogen atoms in your body.

So, why did his peers and colleagues shunned him when he won the Nobel Prize?

It all comes down to what happened in July 1914, when World War I started out. Haber volunteered for military service when the war broke out. He wished to use his knowledge to benefit his country. The German army was already out of gun powder and explosives just a few months into the conflict. Aside from being a good fertilizer, ammonium nitrate is also an explosive.

Take a look at what happened in Beirut in August of 2020. A warehouse storing over 3,000 tons of ammonium nitrate caught fire, and the fertilizer detonated due to the intense heat. At least 217 people were killed, and many were injured in the explosion.

Haber advocated for the plants that used his technique to produce ammonia for fertilizer to instead produce nitrate for explosives. From bread in the air to explosives in the air.

In addition, in December 1914, Haber set out to create a gas that was lethal at low quantities and heavier than air, allowing it to seep into the allies' trenches. After a few months of research, he settled on chlorine gas.
At 6 p.m. on the 22nd of April, German troops released 168 tons of chlorine from more than 5,000 gas cylinders, with the wind blowing toward the Allied trenches. The gas wall moved across the battlefield. Because chlorine gas is two and a half times heavier than air, it sank into the Allied soldiers' trenches. Any soldier who inhaled a lung full of the gas died horribly. Chlorine irritates the lungs' mucus lining so severely that they fill with liquid. On dry land, the soldiers effectively drowned. During World War I, chemical weapons killed 100,000 soldiers.

Shortly after World War I, Haber's institute developed a cyanide-based insecticide. Because it had a barely detectable odor, they added a foul-smelling chemical to warn people of the danger. Zyklon B was the resulting gas. The Nazis requested chemists to remove the foul-smelling component a decade after Haber's death, and this form of Zyklon B, the chemical developed at Haber's institute, was then used to perpetrate the Holocaust.

Thinking about this story, it's easy to see Haber as either a villain or a hero for inventing the process that feeds half the world. Another viewpoint is that he is irrelevant to the bigger picture because someone else would have discovered a way to extract nitrogen from the air, and also other scientists were developing chemical weapons.
Science and technology have greatly improved our lives over the centuries, but they have also provided us with ever more ways to destroy ourselves. It would be nice to think that we could ask scientists to only work on problems that benefit humanity, but the reality is that every piece of information has the potential to be a double-edged sword. You have no idea what the outcome of your research will be or how it will be used in the future. Ammonium nitrate is a fertilizer as well as an explosive. So, the real question is, how do we continue to increase our knowledge and control of the natural world without destroying ourselves and everything else on this planet?

WETEX EXHIBITION VISIT

WETEX and Dubai Solar Show, organized by Dubai Electricity and Water Authority (DEWA), are in line with Dubai's vision to create a sustainable future for the Emirate and are held annually under the directive of HH Sheikh Mohammed bin Rashid Al Maktoum, Vice President and Prime Minister of the UAE, Ruler of Dubai, and under the patronage of HH Sheikh Ahmed bin Saeed Al Maktoum, Chairman of the Dubai Supreme Council of Energy.

WETEX and the Dubai Solar Show are ideal venues for displaying the most recent technological advancements and disseminating the most recent trends in energy, water conservation, natural resource conservation, and sustainable landscape construction. They provide an ideal occasion for original and transnational companies and associations to partake and showcase their products and services and offer a forum to partake in practices with fairs from around the world.

The exhibition includes 6 halls containing companies from all over the world presenting new projects related to clean and sustainable energy (solar energy, wind energy, and others). And there are also companies specializing in electric cars, such as Mercedes and BMW.

Finally, students can gain a lot of experience regarding clean energy and sustainability. They will enjoy visiting this exhibition

By Abdalla Mohamed Elshamy

GITEX

GITEX has several categories, including higher education, vocational education and training, career counseling, and professional development.
GITEX typically features a wide range of educational institutions, training centers, and companies in various industries, including technology. Some of the technology companies that may participate in GITEX include Microsoft, IBM, Apple, Google, and many more. However, the specific companies that participate in GITEX can vary from year to year .
some events or competitions may be organized during GITEX that allow people to present their ideas or innovations. For example, some universities or companies may host innovation challenges or pitch competitions that allow individuals or teams to present their ideas to a panel of judges. These events can provide participants with valuable feedback, exposure, and networking opportunities.

DUBAI DESIGN DISTRICT

Dubai Design Week is an annual event held to celebrate and promote design and creativity in Dubai, United Arab Emirates. The first Dubai Design Week was held in 2015, and is held annually at venues across the city, with Dubai Design District being the main hub. With an extensive program of free-to-attend exhibitions, talks, and workshops, it is the largest creative festival in the Middle East.

D3 Trip

DUBAILINE
Premium Design

The Undergraduate Research Conference on Applied Computing (URC) held at Zayed University

CRYPTO MINING COOLING SYSTEM (one of the winners)

The project gave a promising solution to reduce the temperature of the GPUs used in the mining process. This can be achieved by building a smart cooling system using heat sensors to read the temperature, cooling peliters with a very cold side when dc power is applied, and Arduino to control the process.
Done by Mohamad Nassif

ONLINE BULLYING DETECTION

The idea is to use Machine Learning and Artificial Intelligence to Detect keywords and the pattern used for bullying on social media. The Machine learning will follow the pattern and detect the words. When the word is detected, the software will be reporting the word to the concerned department of the police to follow up accordingly.Done by Abdullah Elshamy

SOLAR-POWERED (IOT) WEATHER STATION

This project provides a solar-powered weather monitoring system design. It analyses several environmental elements. It is made up of an Arduino Nano 33 IoT that serves to gather data and information via various probes. Such a technology can be employed in controlled environments such as farms. Projected on an LCD display during adverse conditions.Done by Abdullaziz Khamis

MICROCONTROLLER-BASED PHOTOVOLTAIC MONITORING SYSTEM

This system consists of a pic microcontroller connected to an LCD and a photovoltaic panel. The PIC is programmed such that it monitors and displays the four parameters of a photovoltaic system, current, voltage, light intensity and temperature, these readings are then displayed on a live Excel chart via the PLX-DAQ software and data acquisition software. Done by Zain Elabdin Ahmed

SMART IOT BASED SOLAR PANEL COOLING SYSTEMS

This enables heat monitoring, advanced analysis, and system control, which increases the overall efficiency of the solar PV panel and cools it to maintain its performance. To improve our system, we use IOT. The mobile app is used to deliver data for monitoring. This control switching on and off the system. After collecting the data, the application performs the analysis and converts all the information.
Done by Matar Khalifa Alyammahi

WYN APPLICATION

The application includes all the service that customer needs by submitting their location, whether filling gasoline or maintaining a car in general, car insurance and licensing. It works 24 hours, is serviced fastest, with the least effort, and has the best price. this application can help everyone Especially groups of people such as females, the elderly, expatriates, or tourists. Done by zain Ahmad Azazi

PROPOSED MODEL FOR PREDICTING OPTIMUM TILT ANGLE OF SOLAR PANELS IN FUJAIRAH

The project aims to predict the optimum tilt angle, which is the angle to which the solar panel will be attached, using equations related to the sun angles. The code has been written and solved by MATLAB. Getting the exact angle means higher power can the solar panels collects, leading to higher efficiency from the PV. Done by student Raghed Ibrahim

PEAK POWER MANAGEMENT

We connect a small monitoring device served by Etisalat in each home with a FEWA, and this device will provide the text information needed to the consumers by each second and each minute. So, they can see what amount of power they use and how much is remaining to be used. Done by Shamma Al Hassani

AFRO ASIAN FORUM FOR INNOVATION AND TECHNOLOGY

Cyber security

Students of the College of Engineering and Technology: Aseel ElHabach, Rouzan Alkady, Reem Zaher, Maryam Ebraheim (cyber security), and Roaa Osama (Electric engineering) have won first place in the Research papers category in the Afro Asian Forum for Innovation and Technology competition by their "detecting web attacks using deep learning" research paper that explains The approach they used to detect website defacement. First, using machine learning (ML) classification. Which depend on the pixel metrics for features when learning from the images. The Following describes how the CNN model will learn from defacements and legitimate websites, and how it detects defacements in the wild.

They collected a Collection of labelled website defacement and legitimate websites and take their screenshots of the browser menu to train their model. The implementation was done using python and the convolutional neural network architecture. Where we were able to achieve a test accuracy of over 70%.

IEEE COMPETITION

IEEE is the world's largest technical professional organization was having its 16th Annual IEEE UAE Student Day this year which was hosted at Higher Colleges of Technology in Sharjah.

Team one: Rouzan Alkady and Asseel El Habach (Cyber Security) were participating in DESC – Cyber Security Challenge about the Defacement of Websites. They represent their proposal of how to detect data web attacks using deep learning algorithms. Deep learning is a subset of machine learning which is a neural network with three or more layers. They trained their model to learn from screenshots of normal and defacement websites to detect the attacked one.

Team two: Reem Mohamed Zaher, Mariam Ebrahim (Cyber Security), and Roaa Osama (electrical engineering). The application we did is about detecting web defacement. Web threats have major effects on website owners, such as damaging website operations. We offer a machine learning-based technique for detecting website defacement. Machine learning techniques are employed in our strategy to create classifiers (detection profiles) for classifying pages as Normal or Attacked. Our technique works well for both static and dynamic websites since the detection profile can be learned from training data.

Green is a Lifestyle

(Sustainability event)

The Engineering and Technology College organized a sustainability awareness event under the title "Green is a Lifestyle" that took place at Fujairah's Umbrella Beach under the supervision of Eng. Lamiaa Hussein, Eng. Areej Hamdan, Eng. Marah Saif, and Eng. Momen Odeh from the College of Engineering and Technology.
The event had various activities and games for all age groups designed to increase awareness about the meaning of sustainability and its importance for our future and the future of our planet.

COOKING AS STRESS RELIEF

Food is a blessing to those who can find it and eat it peacefully, to me cooking and making food is the best way to stress relieve all the tension from studies. Making food for the ones I love is my favorite hobby it's an act of kindness that I like to express my feelings through it. I feel free and happy making it for the ones I love.

It's a beautiful thing being able to be involved in the art of food, food doesn't confuse me it helps me and that's a blessing.

Psychiatrist Carole Lieberman says cooking makes people feel good because it's a way for them to nurture others. "If you're cooking for people you care about, you get nurtured by their appreciation," she says.

Cooking Competition

Winner Dish

Artistry that comes from within is reflected through the art on my face

ART PIECE

Through the Darkness

Eyes Of Gold

Art By Yasmeen

CINEMATIC ART

ART BY :- Zain Elkbera

هكذا رباني أبي
آخر من يغادر أرض المعركة
،،،لا أجزع،، لا أفر
بإرادة حرة وعقل حر
أمتطي صهوة جوادي
بسيف نافذ في يدي،، ألوذ به من كل شر
و أفدي أحبتي بعمري،، و كلي فخر
لا أتنازل ،،، و لا أنازل،،،، إلا المعادي...
،،هذي أنا،،، ابنة أبي ،،، ابنة محارب
يده حديد،، قلبه ذهب
،،،أحمله بين جوانحي في كل وادي
هذي أنا،،، لا أخلف عهدي و لا أخون .. حتى المنون
داخلي تلك الفتاة الحالمة
تبغي المدينة الفاضلة
،،،،تأبى الحياة الظالمة
تذوب صدقا ،، و عشقا،،، و صبرا ،،،، و جلد...
وتهيم تبحث عن فضائلها دون كلل أو ملل
حتى لو ظلت للأبد.....
و تربي براعمها الصغار ،، كما تربت و ترعرعت..
لا تكابر،، أو تباهي بأي شئ تملكه ،، إلا المبادئ
و كل ما عدا ذلك ،، بنظرها هالك... إلى فناء .....
هذي أنا.... ابنة سماء
والحق أني أتيه فخرا حين ينادوني كذلك ....
وأكاد أحلق في السماء ....
فقط.. حين يلقبوني بأبي
أو يرونه داخلي ... في رأفتي،، و عفتي
في رقتي ... وفي غضبي
في رؤيتي،، و مذهبي
أفخر لأني.. ما رأيت مثله في الإباء
هذا المزيج المستحيل بين الشجاعة،، و الصلابة... و...
الحياء
،،،آه كم أفخر يا أبي،،، و أنا أقول لمادحيني
،،لا تشكروني.. لا تمدحوني
فكلي ذرة من بحر العطاء..
كل ما في من خير... فقط.... لأني .... تجرعت خيرا.....
حتى الامتلاء
فقط ... لأني..... أبنه أبي...
كفاني فخرا.. أنني.. ابنة أبي .....

Young Athletic Journey.

Initially, my enthusiasm and passion for playing football were great, especially when watching its stars on TV and dreaming to follow in their footsteps and become a celebrity. At first, I was just an amateur player playing with his friends in the street from which many of the best players came.

Until I was 16 years old, I was able to become a real football professional. Fortunately for me, in the same season, the Argentine legend Diego Maradona who is considered one of the 3 greatest players in history, was present coaching the team, and he was the biggest motivation for me to have the honor of training under his leadership.

Unfortunately, this dream did not last long, I had the most serious injury that athletes face in the knee, which kept me out of the stadiums for 11 months, but with the constant support of my family and friends, I returned to complete the journey of a dream whose passion did not diminish even after the injury

BY: Yahya Yousri

HOW I BECAME A GYMRAT

I spent my childhood as a chubby fat kid, and then my teenage went on the same way as well. I was always trying to lose weight in the unhealthiest ways possible, all I cared about was the number on the scale but not my health. My weight loss experiences always lasted for 2-3 days max. I've always wanted to do the before and after trends but I only had a day 1, day 2, and never a day 3. Until I decided to join the gym.

My whole life changed, not only physically but also mentally. The gym made me realize that nothing is more important than my health and how I feel about myself. Exercising helped me get more energy and a sense of achievement in my life. I lost weight because of it, which is an added benefit and I'm in my healthiest form right now and fittest self. Now I care about the weight I can lift, not my weight on the scale.

It took me a long while (months and months) to realize that I was doing things I struggled to do before. Squats, for example, used to hurt my back like crazy, but over time and weekly practice my body got used to the right position and now my back no longer screams for a rest. And now I can even add extra weight (up to 40 kgs) to my squats. It feels good to recognize those improvements and motivates me to continue exercising.

The feeling I get after a good workout is fantastic. This is due to the release of endorphin hormones that makes people feel great. That is why many people can get addicted to working out, and that's exactly how I became a Gym Rat.

By Israa Alasmawy

WHY IS FAST FOOD HEALTHY?

It's perfectly fine to indulge occasionally and eat foods that are not always healthy for you. The key is moderation and maintaining a healthy, balanced diet. Purchasing fast food can transform my mood. IF I know that every Friday, I can indulge in foods that are slightly unhealthy, I can look forward to that treat during the week. Then I can go out and face the world.

Also relying on fast foods can save your time, during the week if you are a student your schedule can get very hectic, and you can't always plan a healthy lunch for yourself. Furthermore, fast food can expose you to items that you may not ordinarily try, such as veggie burgers.

Fast food can be nostalgic A lot of my childhood memories are tied to a fast-food meal. I remember happy meals, birthday parties at McDonald's, and cheeseburgers after basketball practice.

Every time I eat something, it brings me back to a time when life was simpler and calmer. It's one of the few connections I still have to childhood. As long as you exercise, maintain a balanced diet, and visit the doctor regularly, I don't see why you can't incorporate fast food in your diet. You shouldn't eat it every day but you may find that eating it occasionally will help your overall physical health.

By Zain M