

NEW BEGINNING

E - A C T 2021

OFFICIAL MAGAZINE OF UTAS - AL MUSSANAH
7TH ISSUE, DECEMBER 2021

Welcome to the pages of UTAS-A E-Magazine 2021.

As the newly appointed Dean of UTAS- Al Mussana College of Technology, I could proudly say that this institution has made a remarkable progress in transforming to being nationally competitive as will be showcased in the pages of this edition of our e-magazine.

The achievements and initiatives that you will see here are measurements and milestones as we continue our efforts to achieve overall distinction at UTAS-AI Musanna as it is the excellence itself that we have been striving for.

We are still experiencing a serious and unexpected challenge this year, as we are still crossing the effects of one of the worst global crisis in history. With this, our strong commitment to student success has never been more important than it is now. I am proud that UTAS-AI Musanna's staff and students are some of the most dedicated, result-focused, and motivated I have seen. So when it comes to facing challenges and advancing in the initiatives and programs that help them achieve success, everyone in our community comes together.

This edition focuses on the many ways our institution is growing opportunities for our students to follow their academic passions.

I look forward to seeing you on-campus again soon. For the meantime, we will get through this crisis and its challenges by working together and overcome the effects of this unprecedented situation.

Finally, I would like to acknowledge the team behind the success of this E-Magazine. I cannot wait to see more of your future publications.

Thank you very much and enjoy reading.



Dr. Ahmed Ali Ahmed Al Shahri
UTAS-A Dean



Excerpts from the Speech of **His Majesty Sultan Haitham bin Tariq**

"Youth are the wealth of a nation, its inexhaustible resource and the arms that build it. They are its present and future. We will always listen to them, and sense their needs, interests and aspirations which will definitely be accorded the attention that they deserve

On top of our national priorities is the education sector, with all its types and levels. It will receive full attention, and it will be provided with the supporting environment which motivates research and innovation. We will also provide it with all means of empowerment, since it is the base upon which our children will be able to participate in meeting the requirements of the coming phase of development".

20

New Beginning

The University of Technology and Applied Sciences, Al Mussannah (UTAS-A) has proven that it is ready to face any emergency that would change the routine and conduct of the educational process.



5

QA. Strategic Planning and IPMS

An Assessment of the Impact of Tropical Cyclone Shaheen on UTAS-AI Musannah Infrastructures

Students Council

Workshop on Health and Safety about First Aid in Work Environment

Maybe Harmful & Beneficial

Perceptions and Perspectives



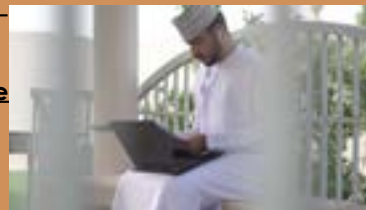
The implementation of the Individual Performance Measurement System (IPMS) was presented to the UTAS-A staff of each center and department by the QAD in coordination with HRD from mid-October to 03 November



17

Change to Challenges for remote working / learning during pandemic (online resource during COVID-19)

The education system has undergone a paradigm shift during this pandemic. Every educational institution despite its organizational structure looked for a shift to virtual and digital teaching strategies. Though, the consistent organizational set-up at UTASA was slightly affected by this unpredicted pandemic, it was commendable to observe the expeditious efforts taken up by the Top management to stabilize the situation.



18

2nd IEEE Oman SYP Congress 2021 Organized at UTAS-A

IEEE student branch of UTAS-A successfully organized the 2nd IEEE Oman SYP CONGRESS 2021 on 23rd March 2021.

Engineering Students participated in the NASA International Space Apps Challenge 2021 on Oct 2nd and 3rd 2021.

NASA International Space Apps Challenge 2021 held on Oct 2nd and 3rd 2021 had 28000 registrants spanning 162 countries. An interdisciplinary team formed with students of Engineering and IT Departments participated with the Team Name "UTASA Galaxy".

24

**Workshop on Health and Safety about First Aid in Work Environment**

A workshop on Health and Safety was conducted at UTAS-AI Musannah on 7th December 2021 through the initiative of the ETC-Health and Safety sub-committee headed by Ms. Fatma Rashid Alqasm. The workshop aims to promote first aid awareness and its importance in the academic environment.

12

29

IPI WEEK (INTELLECTUAL PROPERTY)

Engr. Khalil Al Maawali a project executive and member of national program for Artificial Intelligence & Advanced Technology, Ministry of Transport, Communications & Information Technology. He delivers public talks on FOSS all around Oman and leads FOSS development programs.



31

ISACA Student Group (ISG)

ISACA Student Group (ISG) always strives to encourage education beyond the classroom by allowing students to network and learn from each other and connect with a supportive group of professionals.



UTAS- Strategic Plan

In preparation for the next academic year's UTAS Strategic Plan, a series of seminars were held in the campus such as Alignment of Oman Vision 2040 to UTAS SP and SWOT analysis on 26 and 28 April 2021. A workshop on alignment of research, development and innovation related to HEIs was also conducted on 02 May 2021 and a Review of UTAS SP elements took place on 02 June 2021.

As a result of these initiatives, a timeline and guidance for the development of SP of the UTAS

branches were disseminated to branches. Following its action plan, all UTAS branches were requested to conduct a workshop on developing sub-elements; sub-goals, strategies and key performance indicators (KPIs) based on the College Strategic goals. UTAS-A conducted its workshop on 30 November 2021 where staff from centers and departments participated. Prior to the above UTAS-A workshop, a National Conference was held on 21 November 2021 where UTAS SP main elements were

presented. These elements include the Vision, Mission, Strategic Goals, Values and Graduates Attributes. It is expected that in March 2022, the UTAS SP sub-elements will be approved and that all branches will be ready to draft their respective operational plan. The approval of the operational plans of the centers and departments at the UTAS branches will then be ready for the academic year 2022-2023.

IPMS Individual Performance Measurement System

Ms. Balqees Rashid Al-Mandhari

Quality Assurance Department - HOD



The implementation of the of the Individual Performance Measurement System (IPMS) was presented to the UTAS-A staff of each center and department by the QAD in coordination with HRD from mid-October to 03 November 2021. The purposes of the IPMS are to build a culture of quality performance, improve the performance evaluation systems, and link productivity with incentives. Mr. Aatif Al Balushi who was appointed as Deputy Chair and Ms. Balqees Al Mandhari, Head of QA team led a series of workshops at UTAS-A to

familiarize the staff about the system and its parts. Mr. Al Balushi and Ms. Al Mandhari work for the Committee on the System for Measuring IPMS and Institutional Proficiency. They were supported by the UTAS-A team; Ms. Rawdah Al Balushi (BS), Ms. Safiya Al Jahradi (IT) and QAD staff; Mr. Masaoud Aal Salmaani and Mr. Nasser Al Yahmadi. During the workshops, the staff were guided on how to develop Objectives and Key Results (OKRs). The staff set their individual key results that will help in achieving their objectives.

The OKRs are to be in line with the center or department's operational goals and plans. Nasser Al Yahmadi.

The team conducted 12 workshops attended by 90.6% (390) staff. There are 342 individual staff plans with their OKRs submitted following the series of workshops. To help improve the system, the UTAS-A staff submitted their feedback about the system to the UTAS IPMS committee.

To date, the IPMS team achieved 236 workshops conducted throughout the UTAS branches, with 106 trainers involved and 85% so far have prepared their Individual Plans. The actual implementation of this electronic version of the system will be in January 2022.



On the way back to Normal Academic Life





Dr. Malik Hamed Saif Al Zakwani
Assistant Dean for Admin & Financial Affairs (ADAF)

The University's Administration and Finance assess the effect of Tropical Cyclone Shaheen on UTAS-A and provide immediate solutions to the identified problem brought by the cyclone.

Below are the detailed action taken:

On October 03, 2021, the Sultanate was hit by a tropical cyclone called Hurricane Shaheen, which resulted in a devastating loss of human life and material damage to properties. A hurricane is a violent, rotating windstorm that is formed from a group of thunderstorms. Since the University of Technology and Applied Sciences Al-Musannah (UTAS-A) is located on the coastal strip of the Governorate of South Al Batinah, it has suffered numerous damages due to the strength of winds and rain, including the following:

- There was water leakage from the roof of some buildings in the university.
- The air conditioners malfunctioned (outdoor units fell in most buildings).

An Assessment of the Impact of Tropical Cyclone Shaheen on UTAS-AI Musannah Infrastructures

- Umbrellas covering the parking lots of the employees collapsed.
- 14 umbrellas for the university students' lounges were destroyed.
- A lot of trees at the university campus got uprooted.
- The football field fence on the university campus fell.
- The fire hydrant box in the Business Studies Building collapsed.

On October 04, 2021, the evening following the hurricane, the university officials visited the university to inspect the damages caused by the hurricane. A detailed report on the damage caused to the university was then compiled.

During the second day of calm after the tropical situation, the university administration directed the concerned department of administrative affairs to dispose of the remnants of the storm and to restore and prepare the facilities as they were before the hurricane.

The Department of Administrative Affairs developed a quick plan to clean the university from the waste left by Shaheen and after two days of work, the streets and university facilities were cleaned to the fullest.

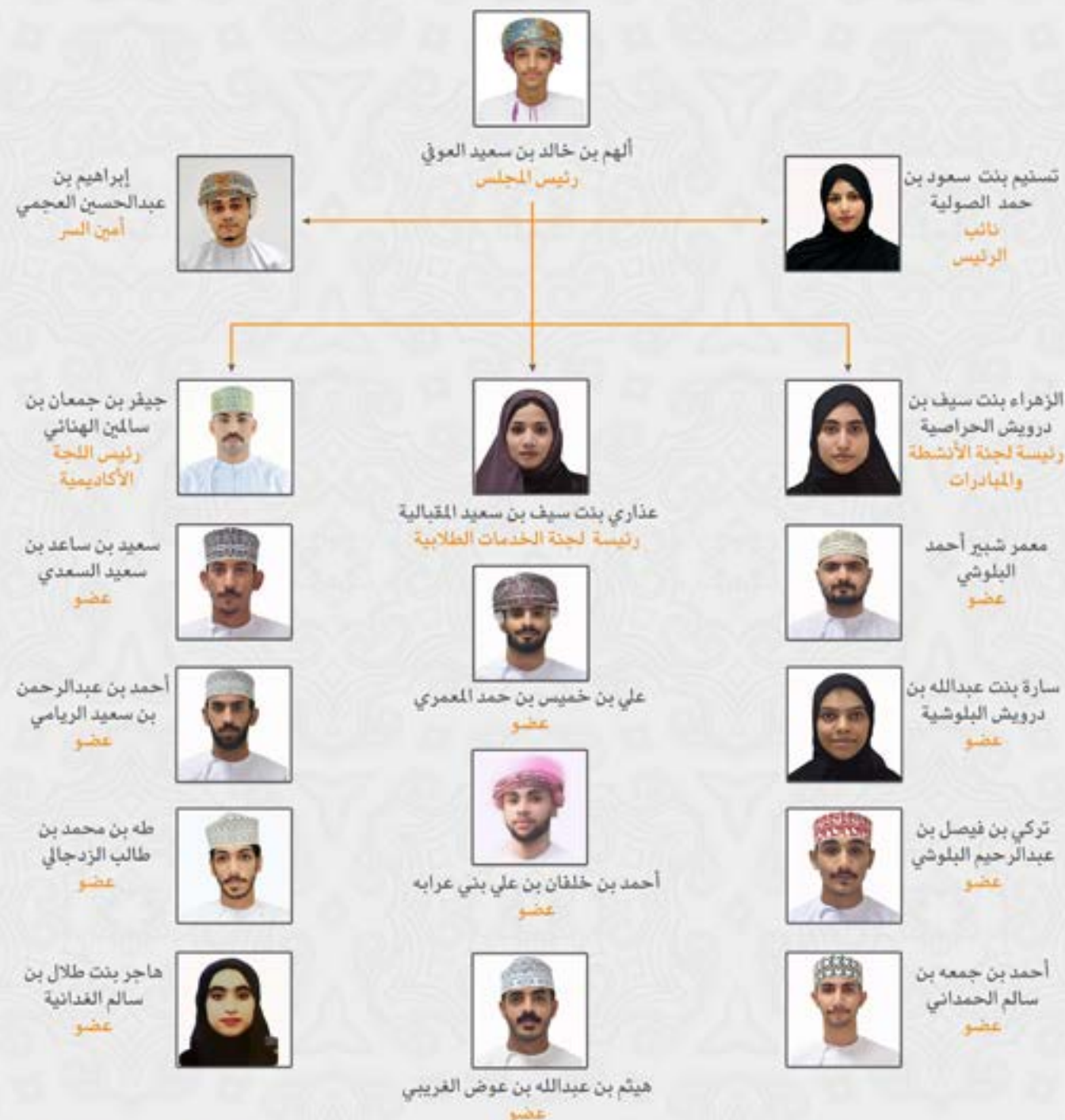
The Department of Administrative Affairs also supervised the completion and/or restoration of the following projects after the storm:

- Completed the maintenance of the water leakage site where the roof (aluminum sheet) was changed to a reinforced concrete roof.
- Completed the repair of the air conditioners that malfunctioned.
- Completed the repair of the employee parking canopies and one of the canopies has been completely replaced.
- Completed the transport of fallen tree residues away from the pavements and buildings at the university.
- Completed the reinstallation of the fire hydrant box in the Business Studies Building. The university administration seeks to complete work on all the other affected facilities and rehabilitate them and it is very keen to promote and develop the university's facilities and services to the highest possible level in the coming months.

UTAS-A



المجلس الاستشاري الطلابي الفترة السابعة (2021-2022)



act.sc act_sac
studentcouncil@act.edu.om



Student advisory council
It is a student representation consisting of 17 members who are elected annually

and works to contribute to the development of student life in the college in terms of academic and service aspects, activities and initiatives. The opening of candidacy for the Council is announced annually in the first week of the first semester. And there

is council objective and tasks, or his deputy, in the presence of at least two of the members. A meeting of

Advisory Council was held with Dr. Ahmed Al-Shahri, Dean of the University of Technology and Applied Sciences in Musannah, they



discuss about student council arises. The meeting shall be held by the chairperson of the council.

The council office meets periodically at the invitation of the council president once a month or whenever the need during the meeting.

Elections and their procedures
Council elections take place no later than the third week of the first semester of each academic year.
According to the following controls:
Each college counts as one electoral district.
Students in the college

elect their representatives to the council by direct election.

Workshop on Health and Safety about First Aid in Work Environment



There were two (2) trainers from the Oman Nursing Association (ONA) during the event. The first speaker was Mr.

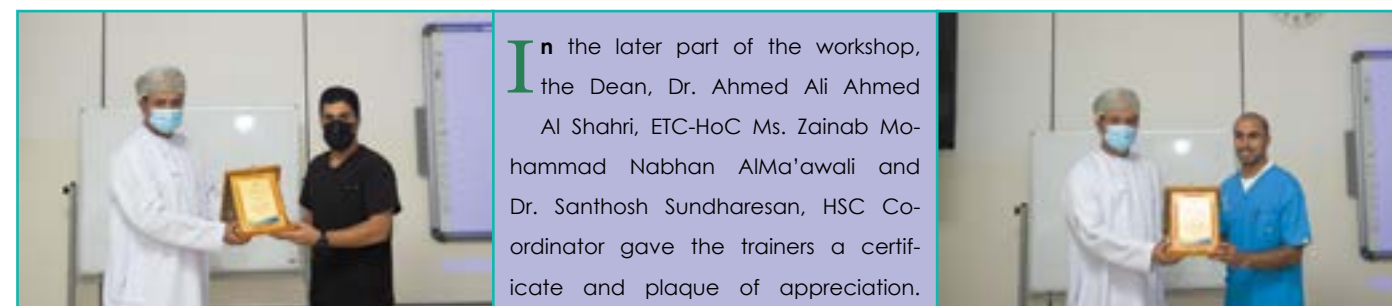
Hasan Al Riyami, a nursing graduate from the College of Nursing, Sultan Qaboos University with an international certification in complex structures. Mr. Al Riyami is a member of the American Heart Association (A.H.A.) and an instructor for Basic Life Support (BLS) and Advanced Cardiovascular Life Support (ACLS). He has been working in Sultan Qaboos University Hospital for 12 years. Mr. Faisal Al Rashdi from Diwan Royal Court, Emergency Department, also spoke during the workshop. He is a nursing graduate from the College of Nursing, at Sultan Qaboos University and a student in Master in Education Management and Policy in North-east Normal University, China. He too is a certified member of AHA and an instructor for BLS & First Aid since 2014. He has been working as AHA advanced cardiac life support provider as well as an advanced trauma life support provider for 11 years.

A workshop on Health and Safety was conducted at UTAS-Al Musannah on 7th December 2021 through the initiative of the ETC-Health and Safety sub-committee headed by Ms. Fatma Rashid Alqasm. The workshop aims to promote first aid awareness and its importance in the academic environment.



The trainers tackled the important standard operating procedure on how to respond and provide first aid to victims while not putting the responders into harm's way. Accident/s or incident/s that may happen in the University environment such as burns, sprain, choking, heart attack and cardiac arrest were exceptionally discussed.

The proper ways on dealing such situations/incidents were also and explained as well as the repercussions of not giving correct first aid to a victim. Practical simulation on how to and what to do when victims suffer burns caused by either fire or chemical were conducted including how to apply the Heimlich Maneuver for adults and 2-finger technique for infants for choking incidents.



In the later part of the workshop, the Dean, Dr. Ahmed Ali Ahmed Al Shahri, ETC-HoC Ms. Zainab Mohammad Nabhan AlMa'awali and Dr. Santhosh Sundharesan, HSC Coordinator gave the trainers a certificate and plaque of appreciation.



Heart attack and cardiac arrest first aid were also given focus because it is a killer in nature. The trainer explained that a person who knows first aid can save the life of a heart attack or cardiac arrest victim.

The proper way of giving Cardio-pulmonary Resuscitation (CPR) was demonstrated too by using a medical mannequins.

The trainers also demonstrated another way to save the life of a heart attack or cardiac arrest victim through an Automated External Defibrillator (AED).

Such presentation regarding the AED was an eye-opener for the audience as they understood least one (1) AED should be present in the University because it is a game changer in terms of providing initial help to people who suffer from cardiac arrest.



Maybe Harmful & Beneficial

Corona turns life into a normal virtual life to the extent it should. Man does not stand idly by in front of the obstacles he faces, he always seeks to find alternatives and solutions and to overcome difficulties in order to continue life, which is the instinct of God that made people.



Ms. Fatma Al Qasbi
ETC Staff

This is how we found ourselves in front of the obstacle and the pandemic that has befallen the whole world, perhaps the most difficult and most important challenges that have befallen humanity in our time. Each endeavored in his field to continue life and meet human needs. Life has become digital to the extent it should, we turned to the world of technology, and opened our eyes and minds to the possibilities of great digital platforms. We have become so used to the digital world that it has become difficult to return to life before Corona, in education, work, shopping and all aspects of life. And a hotel for accommodation and hospitality ceremonies, everyone can participate and attend wherever they are. We facilitated online shopping and strengthened the relationship with it as it should.

Earlier, specifically before the pandemic, the term remote learning and work was not so common, but now we are able to achieve from behind screens, and in the event that we cannot reach the workplace or study for some circumstance, it is possible to compensate through the digital world. The aspects of life that technology has become attached to are not limited to what I mentioned above, they are just to name a few. As for Corona, I can only say that we are becoming more aware that technology has changed the way we live forever, and that returning to normal life means continuing to consolidate our relationship with it. We may be on the verge of returning to normal life; But it has become a default natural in everything.

UTAS-A Library Activities - 2021

UTAS-A library launched a digital library on World Book and Copyright Day, April 23, 2021 to encourage reading amongst students. The idea came about when it was realized that due to COVID-19 the students were not only stuck indoors but also had a lot more time. UTAS-A library collected books with joy and color and put them up in a way that was easily

accessible to our students.

Reading adds immeasurable benefits to our lives. It teaches us to empathize with other people through the characters of our story. Reading also reduces stress, helps fight depression and aids in good sleep. These E-books can be found on the Library Information System under 'flip book' category. The Library Student Committee on 30th March 2021 conducted a webinar. The webinar called 'Time to Sell' was presented by a member of this committee Ms. Fatima bint Jamil Al-Rawahieh via MS Teams. The workshop was meant to help students understand how to organize their time. It was discussed that one way to achieve this was by writing down one's priorities so that time is not spent aimlessly. The workshop was quite interactive and attended by a number of students.



Dr. Annie Bangtegan Domede
Lecturer, ELC, UTAS-A

This pandemic has changed the educational landscape forever. Teaching and learning, academic advising, peer tutoring, mentoring, assessment and other similar academic endeavors are now carried out through various online platforms. During the first few months though, this shift from traditional classroom teaching and learning to virtual instruction proved to be challenging for both the educators and students. Issues regarding lack of appropriate instructional materials and technological infrastructures as well as the lack of necessary technological skills are among the limiting factors that academicians, school managers, students, and even parents have struggled with and still continue to face even after more than a year with this global crisis. Unfortunately, everyone is left with no better option than to move forward with life and learn to overcome these challenges of the present time. In life, when a person seeks to move on after a heartbreaking or life-changing event, (s) he goes through various stages of grief. As explained by Elisabeth Kübler-Ross, a Swiss psychiatrist in her book, "On Death and Dying" (1969), the five stages of grief starts with denial, then anger, bargaining, depression, and then eventually, acceptance. In relation to what is happening in our world today, some of us may still be having a difficult time coming to terms with the numerous changes that happened and continue to take place around us due to

Rewiring the Brain for the New Normal

accepted these changes and started living their life with the so-called 'new normal'. Interestingly, even those who have already adapted their ways of life to suit the demands of this new era have gone through different levels and types of adjustments including among others, rewiring their brain. This is for the reason that a sudden shift from one's usual ways to an almost new approach may be truly frustrating and tough especially so when one finds out that his/her old 'normal' ways do not work anymore. Yet, life must go on, and one has to decide to either stick to his/her old ways and may suffer unnecessarily or to rise to the occasion, innovate, and become productive even when things are done differently. Choosing to respond negatively or positively to any situation is a mental activity first before it becomes physical. While one's response to any changes or events in life varies from one person to another, an individual's brain is able to modify, change, and adapt both structure and function throughout life and in response to experience (Voss, et al, 2017). This is called neuroplasticity. Although, brain plasticity is affected by varying individual factors and that this is a topic that deserves its own space, this article seeks to highlight the idea that in the midst of this pandemic where almost everyone's world was turned upside down, it is good to note that humans are biologically equipped with the ability to rewire their brain so as to respond to situations accordingly. This goes without saying that rewiring one's brain in order to thrive in this new normal is but a natural process for everyone, and regardless of the circumstances, people can all become accustomed to these new ways of life brought about by COVID-19. In rewiring your brain to allow yourself to see and hope for better days while staying productive despite the pandemic, it is important that you remain proactive and to not overthink. This takes

a lot of willpower and self-discipline. With this new normal, a lot of the usual activities done for entertainment and socialization are now limited. This results in most people spending their time inside their homes and with very little physical activities to do. In times like these, most people, including educators and students alike may find themselves overthinking about things that they could have done or could have done differently in class or in their teaching and learning experience in general. While engaging in self-reflection and evaluation are critical towards meaningful learning and personal progress, overdoing these to the point self-blaming that leads to anxiety and depression is obviously not healthy at all. Overanalyzing your previous actions, such as a mistake in an exam or poor teaching class performance, may limit you from focusing on your next activity and may cause you to feel unnecessarily dejected. It is then imperative that you learn how to stop yourself from allowing your mind to focus on the things that you do not have control over with or on events that have already taken place. The least that you can do is learn from them and strive to not repeat the same mistake. Another easy, but very helpful practice is to feed your mind with positive thoughts. This sounds cliché, but the truth of the matter is that, it takes a lot of practice to be able to successfully do this and not just say it. One simple activity that you can do is to filter the kind of materials you read and/or listen to whether those are about COVID-19 related information, online teaching, health protocols, etc. Nowadays, some people have a lot of spare time in their hands and some may turn their attention to social media to find solace and get updated with what is going on around them. While there is nothing wrong about social media, it is important that people verify their sources of information and evaluate them before even considering reading them. At this time where fake news abounds and information are sometimes twisted, sensationalized and/or taken out of context, it is wise that you choose the information you expose ourselves to. This is a very basic yet ultimate form of self-mental care. After all, staying mentally healthy and active in this time of pandemic should be everyone's fundamental priority.



Dr. Zafar Iqbal Khattak
Lecturer, ELC, UTAS-A

COVID-19 Challenges: Coveted Opportunities

C OVID-19 has transformed the whole world of ours into a topsy-turvy ball devoid of any colorful life. On surface earth, no one has escaped its scary and scathing effects. Indeed, it has influenced every aspect of our daily lives, forcing us to live in the so-called abnormal social setup. COVID-19 has engulfed the smoothness and serenity of all fields of life, be it education, health, religion, sports, entertainment, commerce, fashion or traveling, and tourism. However, here in this article, I am going to talk about its two positive effects. I consider its tsunami waves (COVID-19) have brought a few coveted opportunities for us as well that have put us back on track of lives that we must have followed in pre-COVID era, and that most of us do always aspire for.

The first positive thing that we have gathered from its unwanted effects is that we have gotten united with our near and dear ones. Prior to the pandemic, we all used to remain extremely busy living our lives sans any real life. We had lost those real, genuine moments that we should have been cherishing with our loved ones.

Of course, we were too busy "to stand and stare" (William Blake: Leisure) at our well-wishers, to sit and chat with our loved ones, and to care and share leisurely moments with them, to think and act for their joy and happiness, and to love and respect their worthy accomplishments. Rather, we had been blindly following the busy business schedules, running around the clock to make ends meet, and ever rushing on to attend business meetings. Now, the COVID-19 situation has positively impacted us to emot and maintain our familial and social relationships despite having to keep social distancing. We have started spending our precious time with our family members and planning our work better. This has helped us build a better future for both, i.e. our work and family. This has made us achieve striking the coveted balance between them- our careers and our relatives. The second more positive impact that we, as educators, have gathered from COVID-19 is the reality that has dawned upon us that our students know as much as we know. Simply, lecturing to, and casting pearls before them will not make us ciphers or philosophers among them. Rather, it has given us an opportunity to see them, our students, as our partner-teachers. The balance that we have found over here is that we bless them with the will, they give us the way. We propose them with a theory, they transform it for us in practical form. We provide them with an opportunity to avail themselves of, they initiate a new vista for us to follow.

They have made us find a way to overcome these immensely challenging series of events in the pandemic by becoming our peers and, sometimes, saviours. Besides, we have learned many coveted tricks and trades of technology that we used to consider as just tools that hinder true learning experience. In a nutshell, we teachers have realized that ongoing remote learning process involving online classes are the new norm where both teachers and students can work together to achieve the set academic goals. Both of us have become mentally synchronized enough to play our respective parts to help achieve the set learning outcomes.

Although we all have been adversely affected and choked up by the unseen clutches of COVID-19 for almost two years now, we are fortunate enough to have come out with a few positives as well out of this pandemic. By following the positive gospels and experiences, that I have talked about in the above lines, may help us cope with COVID-19 effects. We must consider whether or not we ought to keep practicing these positively balanced perspectives and experiences post-pandemic. To sum up, we as teachers need to keep a striking balance between our work and family to lead real worthy lives on one hand, and on the other hand, we do not have to underestimate the faculties and potentials of our students so that we promote real success and learning together.

References:

1. Leisure by William Davies: Songs of Joy and Others (1911) A. C. Fifield
2. Vipin Thomas: 8 Positive Impacts to Look Forward to Post the COVID-19 Pandemic. <https://surveysparrow.com/blog/positive-impacts-to-look-forward-to-post-covid-19-pandemic/> Retrieved and accessed on October 27, 2021.



Challenges for Remote Working / Learning During Pandemic (Online Resource during COVID-19)

The education system has undergone a paradigm shift during this pandemic. Every educational institution despite its organizational structure looked for a shift to virtual and digital teaching strategies. Though, the consistent organizational set-up at UTASA was slightly affected by this unpredicted

pandemic, it was commendable to observe the expeditious efforts taken up by the Top management to stabilize the situation. At the outset, the adoption of online teaching and learning was quite challenging, but the transition of students and staff during this period was simply outstanding. The challenges included network connectivity, organization of the

work processes, and holding the student's attention during class sessions. The initiatives taken up by the ETC and other Academic departments enabled effective management of the problems without interrupting the organizational workflow. Thanks to the positive attitude and the technological literacy that boosted the staff and student's confidence level that resulted in a worthy output.



IEEE student branch of UTAS-A successfully organized the **2nd IEEE Oman SYP CONGRESS 2021 on 23rd March 2021**. This event was fully conducted online in accordance with the instructions given by the Supreme Committee of the Sultanate.

The event was composed of three (3) main competitions

(Graduate Project Competition (GPC), Poster Presentation and Technical Quiz.) along with an expert technical talk. Event details were circulated to all the respective student branches and participant registration was closed by 12th March 2021. Regardless of the present pandemic, a good number of entries were submitted. The inaugural address was delivered by **Dr. Halah Ahmed Al Kathiri**, Assistant Dean of

Academic Affairs, UTAS-A.

She briefed the participants about the milestones achieved by IEEE Student Branch of UTAS-A in the various competitions held across the GCC. Meanwhile, **Mr. Yahya Al Balushi**, Membership Development Officer, IEEE Oman Section

presented the ongoing IEEE activities in the Oman Section. **Dr. Ben Sujin**, Head of Section, IEEE Student Branch counselor of UTAS-Nizwa also shared his expertise in the Artificial Intelligence and robotics which is an emerging area, under Technical Talk session. About 70 student members participated in the competitions. There were 7 expert jury members from different Universities/Colleges for the smooth, fair

and transparent evaluation of entries. Graduate Project Competition (GPC) and Poster Presentation were scheduled at the same time to confine to the time allotment. The audience were given the choice to attend based on their own schedule so that they will not miss out any of the events. The students competed in the technical quiz which was con-

ducted in two (2) days. The prelims (Round 1) were conducted on the previous day while the finals (round 2 and round 3) were conducted on the event day. Round 1 was attempted by all the participants individually.

The top 16 participants were shortlisted and got qualified for the mega event. The 16 shortlisted participants were grouped into 8 teams. The event was organized in a way that each participant had the opportunity to team up with another participant from a different student branch. Each team was allotted with one (1) quiz master. Based on the correct number of answers and the speed of submission, the top 4 teams were short listed for round 3.

The following are the winners for the events:



I. Graduate Project Competition

First Prize

Hamood Said Almamari,
Sensor based Track guided Robot powered by Solar Cell for Automatic Transportation of Objects UTAS -SHINAS.

Second Prize

Manal Saleh Al- Habsi and Tafoul Saud Al- Daroushi "IOT BASED ONLINE MONITORING AND FORECASTING OF WIND POWER GENERATED USING FF-ANN" UTAS -IBRA

Third Prize

AHMAD MAZEN QASSEEM AL ZOUBI Smart Waste Management System Middle East College

II. Poster Presentation:

First Prize

Mazin Rashid Said Albadi and ABDULLAH MOHAMMED ABDULLAH ALBALUSHI "Automatic Fire Detection and Extinguishing Robot Controlled by Android Phone UTAS- Shinas (SHCT)

Second Prize

Majid Mohammed Al Mujaini and Hussien Ali Al Ghafri "Image Processing and Decision Support System for Aeroponics and Aquaponics Greenhouse towards Sustainable Farming" UTAS-AI Musannah

Third Prize

Ahmed Said AL Bualushi and Abdullah Salim AL Rawahi "Detection of faults in water tube and gas leakage tube by using mobile Robot" UTAS-AI Musanna

III. Technical Quiz:

First Prize

Team Name : Ruwi
Team Players: Hibah Mahfoodh Al Hashimi, UTAS- Ibra, and Omar Wazwaz , Dhofar University

Second Prize

Team Name: Muscat
Team Players: Siddig Ismail, National University, College of Engineering and Hussein Ali Hamad Al Ghafri, UTAS-AI Musanna

Third Prize

Team Name: Musandam
Team Players: Issam Saif Ali Al Jawahari UTAS-AI Musanna, and Nouran Osama, Middle East College

All the winners received cash prize and certificates sponsored by IEEE Oman Section. The IEEE Student Branch of UTAS-A are grateful to IEEE Oman Section for providing this rare opportunity. The IEEE Students Branch of UTAS-A is confident that more collaborative projects and engaging competitions will be organized in the future.

New Beginning

The University of Technology and Applied Sciences, Al Mussanah (UTAS-A) has proven that it is ready to face any emergency that would change the routine and conduct of the educational process. It is very keen to find alternatives to successfully deliver its academic and administrative obligations to all its stakeholders and to move forward regardless of the obstacles.

In an interview with Dr. Hala, the UTAS-A Assistant Dean for Academic Affairs, she shared some highlights of the University's preparations and responses to the effects of the pandemic and that of cyclone Shaheen that savaged some parts of the Sultanate.

On the preparations of UTAS-A in the face of the Covid-19 pandemic, Dr. Hala said that the University has taken several measures to ensure that the educational process runs in full quality; the first is to train all teaching staff on how to deliver distance education as teaching and learning must be conducted remotely during the pandemic. This resulted in the necessity of training all lecturers on how to use tools for distance teaching such as Microsoft Teams and preparing and sending tutorial videos to lecturers and students for their additional reference. Students were also oriented and guided on how to navigate MS Teams.

In addition to that, a team was formed to help students solve whatever technical problems they face while using the program. Dr. Hala said that the observance of precautionary measures was one of the University's priorities following the mechanisms prescribed by the Supreme Committee. As such, social distancing, wearing a mask, and distributing hand sanitizers in all centers and departments are being practiced at UTAS-A. All in-person events and activities have also been canceled and replaced with virtual events whenever possible.

Regarding the policies and decisions made during the hurricane period, Dr. Hala shared that the University provided access to a wireless network for those students who were affected. In addition, to ensure an immediate and smooth transition to distance education, the University coordinated with the service providers in the Sultanate to provide the (edu.om) domain free of charge. Moreover, UTAS-A opened special computer laboratories for affected students who wish to come to study at the University due to power outages and other similar negative situations brought about by the cyclone. This is to help these students not to lag behind their colleagues who are attending the lectures. The University also sought to provide cloud services for academic purposes to allow the preparation and storing of recorded lectures.



Dr. Hala Ahmed Salim Alkathiri
Assistant Dean for Academic Affairs

These will all come handy in the event that a student was unable to attend online classes on time.

Dr. Hala also stated that other university branches were contacted to enable students who are in shelters in other regions to use Edurome. She emphasized the leniency and flexibility of the University in dealing with cases where affected students and staff were unable to attend to their on-campus duties.

UTAS-A was also not immune from the volunteer work that caught the attention of many during these times. The Omani society proved that it is united as the University formed a voluntary group to participate in cleaning in the affected areas and villages during the aftermath of the cyclone Shaheen. There were also in-kind and financial donations gathered and distributed to those who were affected by the calamity.

New Beginning



Ms. Zainab Mohammad Nabhan Al Ma'awali
Head of Center - Educational Technology Center

The Educational Technology Center (ETC) plays a big role during the Covid-19 pandemic, the center served as the backbone of UTAS – Al Mussanah Information Technology (IT) Infrastructure and Services. The e-magazine team believes that ETC has an important part in the implementation of online teaching in UTAS – Al Mussanah that is why we ask for an interview related to this matter.

We are privileged to seat with an interview with the Head of Educational Technology Center (ETC), Ms. Zainab Al Ma'awali, and ask her with her valuable opinion on how UTAS-A overcome the challenges brought by the Covid-19 Pandemic. Ms. Zainab, answer all the questions from the challenges faced by UTAS – Al Mussanah and what are the actions and solutions that was been implemented and provided in order to have a successful shift to what we called New Normal.

The Dynamic Leader of ETC leads more than 50 staff who oversees the overall day-to-day operation of the university IT Infrastructure and services.

Others believe that a sudden shift in the teaching and learning process without an actual plan will not have a positive result, there might be truth to this matter somehow, but in the point of view of the technical support center of the university, education and technology are always evolving and what is always constant is change. The ETC-HoC believes that there is always a solution to any problem and as exposed to rapid technology changes, adaptability to the current situation will lead to finding appropriate ways on overcoming challenges.

According to Ms. Zainab, when ETC was informed to prepare for the full online class, the center immediately looked for online learning tools to be used. A team is formed to conduct a study of the available online tools and prepare a recommendation report that was submitted to the Dean for approval.

The approved system was then properly analyzed and integrated with the existing Learning Management System (LMS) of UTAS-A. In addition, intensified training is provided to all stakeholders on how to use the online teaching and learning tools that they

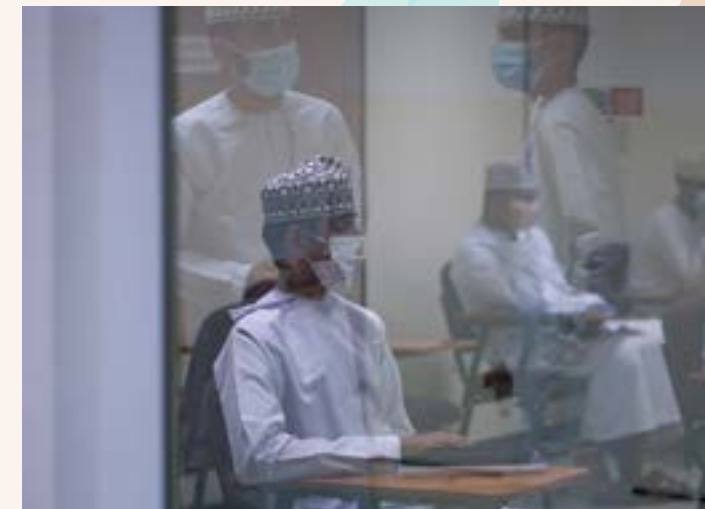
can use in their respective online classes.

ETC also recommended having a system upgrade, especially for the computers used by the teaching staff on campus. Classrooms were also equipped with computers and other needed equipment for teaching. Webcam, headsets, and writing pads were also purchased and distributed to the staff for their teaching and other duties. These were all made possible because of the dedicated staff who are always ready to find solutions to challenges

Further, the ETC-HoC emphasizes that pandemic always has a negative effect, the only positive thing that happened brought by the pandemic is what we learned from this horrible experience. This experience will then lead us to be more prepared on handling changes and challenges in the future. With the lesson learned from this pandemic, everyone should already be aware that any time, a pandemic such as Covid-19 can strike again. We can only depend on our readiness and everyone's cooperation to survive and thrive.



New Beginning



Engineering Students participated in the NASA International Space Apps Challenge 2021 on Oct 2nd and 3rd 2021.

NASA International Space Apps Challenge 2021 held on Oct 2nd and 3rd 2021 had 28000 registrants spanning 162 countries. An interdisciplinary team formed with students of Engineering and IT Departments participated with the Team Name "UTASA Galaxy". They presented their graduation project "Self Billing Trolley" with the guidance of their project supervisor **Mr. Mahmood Zayid Khamis Al-Ajmi**.



The student team comprises of **Noor Nasser Mohammed Khalfan Alhousni (BTech ECE)**, **Rawan Nasser Anad Nasser Alsiyabi (BTech-ECE)**, **Nahrawan Saif Nasser Almazidi (B-Tech-ECE)**, **Layali Rashid Humaid Salim AlSalhi (IT Dept)**, **Nda Yousuf Khalfan AlQutaiti (IT Dept)**



The Team was qualified for the pitching phase and the Team was appreciated by the Head of the Department **Mr. Abdul Hamid Alhinai** and the Head of the Section **Mr. Mohammad Sajid Ali**.

 		
QUALIFIED TEAMS FOR THE PITCHING PHASE		
مدرسة سودة ام المؤمنين (5-12)	MERMAID	TEAM APEX
AGPS TEAM	MILKY WAY	THE BLACK HOLE
ALAMAL SUPERNOVAS	NASCOM	THE COSMOS
AL-HUDA PEERS	OMEGA FIRE	THE HIDDEN TREASURES
AMIGOS Y AMIGAS I	SPACE CADETS	UMM DHAR AL GHAFARI
BUGGYBUGOM	SPACEOM	UNDERWATER TECHNOLOGY COMMUNITY
CHAMPIONS	SPACE SOHAR TEAM	UTASA-GALAXY
DEIMOS	SPACE_SPAM	WHAGE
DONRAT	SPACE TEAM	إنتلاق / ENTLAQAH
DRAGONS	SQU SCIENTISTS	مدرسة النهضة للتعليم الأساسي / نهدات 12-8
E-MISSION APOLLO 11 TO MOON	S.STUDENTS	
MANGALYAAN 2052	SUPER_BIOTECH	



Mr. James Joseph
Lecturer, Mechanical Section, Department

AI Enabled Teaching-Learning: A Boon in Post COVID Academic Scenario

Artificial Intelligence (AI) is capable of addressing most of the challenges that educational institutions are encountering in modern times like the need of

accelerating the pace of students' development and growth, implementation of innovating teaching and learning methods, enhancing efficiency by reducing or eliminating non-value adding recurrent activities and also not to compromise on the core principles of inclusion and equity to all. As it is evident that AI and machine learning-powered technologies have helped several multitudes of students across the world in the recent past, UTAS-A acknowledges the same and has also embraced the online mode of teaching and learning in response to the current pandemic and in keeping abreast of the evolving times.

This article is an attempt to list of uses and advantages of AI and machine learning.

AI in Classroom Learning AI could be effectively used to provide personalized learning for each student. By using AI technology, a tailor-made learning material could be made available by assessing the requirements of each individual student through preferred mode of accessing the classes. Several universities have already

started using augmented reality (AR) to provide enhanced interactions of the students in class-room learning.

Enhanced Access to Each Session As students have gotten used to learning from their comforts and convenience, avenues for personalized learning using AI mobile applications would be a great support for them, especially for slow learners and those who feel embarrassed to ask questions and give feedback to lectures. This would also result in easy understanding of study materials.

AI Algorithms in Assessment Methods Evaluation of assessment methods like quizzes, assignments etc. could be made easier by using the AI technologies. Further remote proctoring during examinations provides opportunities for universities in reducing the invigilation activities. Moreover, this will help institution in offering their programs beyond certain geographical limitations.

Assistance to Students Students enrolled in higher educational organizations write assignments, resumes, statements of purposes, dissertations etc. using several assistive software. Grammarly is popular which helps them to solve problems related to plagiarism, sentence structure and also provide suggestions regarding the presence of parameters in multiple places. Students also get tremendously benefitted from AI-enabled systems that provide mock interviews and help them improve by suggesting improvements in a variety of areas including facial movement, voice pitching, gestures, and other similar aspects. In recent times, chatbot is a computer program intended to stimulate dialogue with human users through the internet. Several universities have already deployed virtual assistants on their websites and social channels. Interactive devices like Alexa are capable of understanding and accurately replying to questions posted by students within a split second.

These applications of AI in education are not exactly replacing teachers, but assisting them in understanding the potential and limitations of the individual student and providing solutions to limitations, thereby utilizing their efforts more effectively.

Automation of Routine Administrative Activities including Advising and Registration Administrative activities like assessment, grading and preparation of report cards could be completed with zero error and high level of effectiveness using advance technologies which otherwise is quite cumbersome and tedious for academicians. Providing constructive feedback using programs empowered by AI and machine learning helps the teachers and students as well and make teaching and learning a more exiting experience.

Encapsulating all the aforementioned benefits, it can be stated with a greater level of confidence that today's educational institutions are in a race to catch up with the use of AI so as to provide a superior learning experience and professional environments to keep them competitive as an institute of choice. AI helps educators to assess the potential of students' learning and thinking abilities and is offering solutions that overcome all modern challenges in academics. Further, it plays a prominent role in improving the methods of learning and training. It is high time to move forward especially in post Covid-19 scenario to adopt modern practices as attempting to strive by utilizing yesterday's methodologies will phase us out in the forthcoming time as educators. Nevertheless, I would like to acknowledge that I have not considered the limitations of AI as it is not in the scope of this review.



Mr. Abdulrahman Sulaiman Al-Hammadi
Lecturer, Mechanical Section, Department

E-learning as a teaching tool during pandemic

This article highlights the challenges using e-learning as a tool for teachings, and what are the lessons learned. The World Health Organization (WHO) announced that people should follow certain things to keep the curve flatten and control the spreading of COVID-19 virus. For instances, these things are keeping physical distance, wearing a mask, washing filthy hands, and staying at home to avoid crowded space. COVID-19 pandemic causes the universities to teach online because social distance is a crucial at this period of time. One of these universities which decided to conduct the classes online is University of Technology and Applied Science - Al Mussanah. The university has tried to find alternative ways to manage these difficult circumstances. E-learning tools have been playing a crucial role during these difficult times.

Online teachings in this university shows good reputation, and it has been growth. That is why no single class cause an interruption to education. The current crisis of the COVID-19 pandemic

has forced teachers and learners to adapt online learning.

Certainly, teachers and learners have faced many challenges beside using e-learning as a tool of learning.

Students reported

of non-conductive environment for learning at home. Teachers mentioned that

they are not able to see students' faces and their expressions if they under-

stood or not like what they used to see when conducting classes offline. During conducting physical classes, students regularly lose focuses especially if the instructor is talkative. Imagine how can we control this during online classes. There are many things we can do in order to overcome these challenges, but the most effective one in my point of me is to

Students need to become active, talkative, cooperative, listen and elicit more speaking. Certainly, there are many effective ways to (TTT) reduction for example creating group assignments which will



involve students to work in groups. In MS teams, there is a feature where



we can create private channels for each group, and conduct separate meetings for each to let the students talk and explain their ideas

and solutions. In addition to that, I sometimes ask students to summarize

In human history, an unfortunate phenomenon like COVID-19 pandemic has not been recorded before. Billions of students in the world have been affected during these difficult times.

previous lessons at the beginning of the class or letting them to do the conclusion. In order to make

sure that all students are paying attentions, I call each student by their names and ask them questions while I am teaching.

The main thing learned from COVID-19 pandemic that teachers and learners must cherish is that they have to use online educational tools even when everything is over.



Mr. Sumesh Malayan
Lecturer, Mechanical Section, Department

Industrial Robotics and Educational Robotics: An Overview

Robotics technology influences every aspect of human life in the modern world. It has an incredible role and potential to positively

transform lives and work practices, raise efficiency and safety levels and provide an enhanced level of service. In addition, robotics is set to become a driving technology for a whole new generation of autonomous devices and cognitive artifacts that, through their intelligent learning abilities, interact seamlessly with the world around them, and serve as a link between the physical and the virtual worlds. Large-scale manufacturing industries already depend on robotics to be competitive. Recent advances in robotics and AI are revolutionizing the industry, business, personal lives, and overall society we live in. They are becoming increasingly important in customer service in the wider business world. The industry has benefited drastically from the expanse of a robotic workforce. Automated machines have taken over the duties of dangerous and strenuous tasks and unexciting jobs from

greater productivity. Finally, a time has come where we foresee a factory with no human workers. Industrial Robotics Industrial automation is a specific kind of process technology. It is the conception and application of technologies to produce and deliver goods and services with little human intervention. There are many different technologies that enable rapid production processes through automation and robotics. With the continuing improvement in functionality and ever reducing the cost of robots and other autonomous systems, its impact on productivity is likely to rise significantly as time passes. Further, with innovative technologies, the Internet of Things, advanced robotics, blockchain, new materials, autonomous devices, and artificial intelligence industrial automation is predicted to reach its paramount level of accomplishments.

Different factors affecting robotic applications that are considered generally are wage levels, benefits of automation, cultural attitudes, industrial relations, government policies and cost of implementation. Educational Robotics In the recent past, popular interest in robotics has increased at an astounding rate. Technology permeates all aspects of our lives. Our students are digital natives who have grown up with the latest technological and innovative products. Although the world is rapidly changing, public education has remained relatively unchanged. Educational reform efforts have been made all around the world, however; the main problem has to do with the fact that most academic institutions are attempting to prepare students for the future by continuing their current practices. This strategy is quite ineffective; if we are aiming to prepare students for future challenges, we need to implement

educational practices by foreseeing the challenges ahead.

Educational robotics is one of the effective learning tool and platform for the student. It provides opportunities for students to explore how technology works in real life. In addition, learning with educational robotics allows students to stop, ask questions, and think deeply about technology. It also gives the opportunity to find new ways to work together to foster collaboration skills, express themselves using the technological tool, problem-solve, and think critically and innovatively. It provides a hands-on mind-on learning. It also aims to improve learning experience of people through the creation, implementation, improvement and validation of pedagogical activities, tools and advanced technologies.

Some of the positive benefits of teaching robotics includes, Progressive improvement in language development

- Boosts innovation and computational thinking
- Facilitates learning and problem-solving attitudes
- Imparts teamwork and promotes socialization
- Improves memory, concentration and inspires curiosity to discover how things work
- Progress logical thinking capabilities through programming structures
- Increases critical thinking and leadership skills
- Renovating creativity through design and problem solving

• Increases written and oral expression skills In conclusion, robotics in education is not a subject that is just to be included in the curriculum; instead, through instructive activities utilizing technological tools, knowledge is activated and built, actions are generated, and interests are awoken in students.



Ahmed Al-Salmi
Assistant Trainer
Civil and Architectural, Engineering
Department

As part of sitting at home and working remotely during the COVID-19 period, we learned a lot of things, including some of the beautiful arts that we gain from education in the technical and practical education stages. Here I will show you a beautiful art that I learned in this past period.

The Art of Resin

The art of resin is one of the most wonderful handicraft arts that result in wonderful forms in many fields, and the most widespread is the field of accessories, and in this article we will learn about everything related to the art of resin.

First,

the definition of Resin:

Resin or epoxy resin is a chemical substance that is one of the types of thermosetting hard plastics, with two components: a base (resin) and a hardener (hardener), which is highly adhesive and resistant to friction and chemicals, whether acids, bases or solvents, where an insulating layer is formed when dry. Used as a

coating, mortar or adhesive, the most produced type of epoxy resin is the product of the reaction between the two chemicals (epichlorohydrin) and (bisphenol) A.

How to make resin boards:

As with every painting, you should think about pre-forming the epoxy, this is especially true for resin art paintings. Once you mix the resin with the hardener, you only have a limited time to finish the casting process.

Once you're clear about your board design and choice of colors, you're ready to go:

- 1- Make sure you have a clean and dust-free workplace in a well-ventilated room. Put insulation to protect your workplace and the floor. The materials you need should be close at hand.
- 2- Paste the floor of the painting on the back side with strong paint tape, so that the drops of resin on the underside of the picture can easily be removed the next day with the tape.
- 3- Place your painting raised on the table surface, for example you can use plastic cups to lift it, if your paint base is directly on the table, this will expose it to stick to the table.
- 4- Make sure the surface of the paint is horizontal on the work surface, otherwise the resin will melt, and your beautiful work will be invisible after a short time.
- 5- Use gloves and wear long-sleeved clothes.
- 6- Mix the required amount of resin and the liquid tonic in their correct proportion for 3 minutes.
- 7- Use toothpicks to mix the two ingredients well. Failure to mix the two ingredients well will make the mass sticky and not completely freeze.
- 8- Start coloring your resin into disposable cups of different colours, a few drops of color are usually enough.
- 9- You can pour the resin cups individually onto your drawing floor or use one of the well-known pouring techniques.
- 10- You can also add some silicone oil to the color mixture.

12- Avoid air bubbles in the plate, if there are any air bubbles you can remove them with a butane torch or a hot air dryer.

13- If the molded resin begins drying after a certain time (it varies from one product to another), the plate should not be changed, as the resin becomes very viscous and begins to pull the threads, such as: chewing gum, then loses the most important property of self-leveling, and heating can delay the process, but to a limited extent.

14- To avoid disturbing volatiles such as dust, hair and mosquitoes on the resin artwork, you should remove them, if necessary, with tweezers.

15- When the picture is finished and it is free of air bubbles and foreign particles, you must cover it to protect it from dust.

16- For this, you can use a cardboard plate, which you put on four bottles, the resin plates should not be exposed to large temperature fluctuations during the drying time.

17- If necessary, you can apply more layers of resin once the first layer has dried (after about 5 hours).

Attached is some photographs of the work.



Intellectual Property and Innovation Week Celebrated

Under the patronage of H.E Dr. Saeed bin Hamad bin Saeed Al

Rubaie, the Vice Chancellor of the University of Technology and Applied Sciences, the Technology Transfer Office (TTO) at the University of Technology and Applied Science – Al Musanna (UTAS-A) collaborated with The Research Council or TRC and organized a successful Intellectual Property and Innovation Week (IPI) event. The event that was conducted from 25th April to 29th April 2021 was organized to create awareness and understanding of the Intellectual property concepts. It also aimed to support research, innovation, and discovery by following governing IP laws and to protect individual human rights in the form of creations, inventions, and dispositions of license to third parties on a commercial basis.



This event also highlighted all types of intellectual property rights, strengthened the link between academic institutions and industry sectors, created a research culture in academic institutions, and encouraged entrepreneurship and innovation skills among students and teaching staff.

Dr. Aziza Al Qamashoui, Head of TTO, organized this five-day program in parallel sessions and was led by eminent speakers in their specialized area. In her speech, she emphasized the importance of IP's contribution towards the fulfilment of Oman Vision 2040.

The event was supported by Dr. Halah Al Kathiri, Acting Dean/Assistant Dean of Academic Affairs. Many local and international speakers shared their experience in the field of innovation, science and industry, law, artificial intelligence, patent, publications etc. The event opened a wide horizon of knowledge to all the participants. The information they acquired from this event will surely help them achieve more in technology, research and innovation.

ACIHA 2021



ACIHA- 2021 (Advances in Computational Intelligence and Heuristic Applications 2021) was organized by the Department of Information Technology on 10th and 11th November

The symposium was inaugurated by UTAS-A Dean, Dr. Ahmed bin Ali Al-Shahri. Dr. Najiba Said Hamed Al-Zadjali addressed the participants over MS Teams and highlighted the activities of the symposium. The symposium invited papers on various themes like Network Sciences, Smart Computing/ Social Computing, High Performance Computing and its applications, Computing Optimization Advances in Intelligent Computing and its applications in Mathematics.

Dr. Najiba informed the participants that the selected papers would be considered for publication in refereed journal and Scopus indexed proceedings. Mr. Gandhi Vellamy, Senior Manager/Senior Technical Architect- Technical Consulting-Salesforce in Massachusetts, USA delivered a keynote address, and he highlighted the latest technological developments in the field of Computer Science & Engineering and Information Technology.

Out of the submitted full papers to the main track and thematic tracks, high-quality papers were scrutinized for the final presentation. The themes featured in the technical sessions were: IOT and Cloud Computing, Data Mining and AI, Advanced Computational Methods and Algorithms. Most sessions were followed by lively interactions. The symposium was sponsored by M/s. Bahwan Groups of Companies and M/s. Al Khalili Group of Companies.



ISACA Student Group (ISG) always strives to encourage education beyond the classroom by allowing students to network and learn from each other and connect with a supportive group of professionals. The ISG at UTAS-Al Mussanah, right from its formation in June 2019, has been fully functional, conducting competitions and professional development programs helping students gain the experience and knowledge that moves them ahead of the competition when they graduate.

3 Position

- Shifaa Nasser Salim Al Hina

4 Position

- Nawal Hamed Saeed Al Maqbali

8 Position

- Rajaa Said Saif Najeem Al Salhi

9 Position

- Zamzam Juma Mubarak Al Noufali

10 Position

- Abir Abdullah Al Siyabi

The ISG students participated in the inter-university quiz competition on the topic "Fundamental Concepts of Cyber Security" conducted by UTAS-Nizwa on 24th February 2021. Among the top ten winners ISG members from the IT department bagged 5 prizes.

The global ISACA Community Day was celebrated at the Information Technology Department on 2nd October 2021, by conducting an inter-departmental **App Development Challenge 2021**. Students selected as winners by the jury members.

First Place

- Mutaz Mohammed Hamed Al Aamri
- Abdulrahman Khalfan Saif Al Siyabi

Second Place

- Zaima Abdullah Al Mazroui



6 students attended TECHFEST-2021 conducted by UTAS- Ibri on 13 January 2021.

3rd Student National Symposium IR4.0 conducted by UTAS- Muscat IT Department on 26.05.2021 had submissions of 2 Student Research - Poster Paper and 2 Student Research Full Paper presentations.

HUAWEI ICT Competition at UTAS-A

Huawei, a leading global provider of information and communications technology (ICT) infrastructure and smart devices, held the ICT Competitions 2021. The HUAWEI ICT Competition is an annual gathering for global university and college students organized by HUAWEI that assesses students from Oman and Middle East on their networking skills. This unique platform was created in 2015 to identify and incubate young ICT talent and organize world-class training opportunities to support the development of a digital economy. The competition was run in levels – National Preliminary (across the Sultanate), Regional Final Competition and Global Final.

HUAWEI Certified Trainers who completed their training in HCIA-Routing&Switching conducted the training for 8 weeks (started 31st March 2021) for students and staff across the country. This competition was participated in by UTAS-A. Around 60 students from Engineering and Information Technology registered for the event.

In 2021, there were seven (7) students who qualified for National Finals.

Shurooq Hamed Saif Al Maawali

Hajir Said Gharib Al Harrasi

Intisar Nasser Sulaiman Said Al Rumhi

Mallak Khalifa Mohamed Al Siyabi

Mathail Salim Mohammed Hamed Al Shukaili

Widaad Khalifa Said Al Handasi

Maram Ghanim Faiz Al Harrasi

Impact Of Higher Education On Economic Growth Of Oman

● Shifaa Nasser Salim Al-Hinai, Raya Naseer Abdullah Al-Mawaali, Gnana Rajesh.D.

Autism And Advanced Technology Use Advanced Technology Brings A Major Change Into The Lives Of Children With Autism

● Amira Mohsin AL-Hamdan, Sara Mohammed AL-Hatmi, Gnana Rajesh.D.

The IoT And Personal Data Protection

● Rajaa Said Saif Al Salhi, Jawaher Hamood Abdullah Al Maqball, Gnana Rajesh.D.

Intelligent Green House

● Yaqoob Yousuf Said Al awfi, Murshid Qasim Muhammed Al maawali, Al mahalab Said Aamir Alabri, Gnana Rajesh



Oman IoT and AI challenge is a capacity building program for university students, schools and startup who have creative ideas on Internet of Things(IoT) and Artificial Intelligent(AI). Israa Mohammed Alkindi, Nawar Habib Albalushi and the graduated student, Nadia Mubarak Al-Mughaizewi under the supervision of Ms. Furat Ali participated in the competition under the graduation project category. The idea of the project is SSA (Smart Students Analysis) which involves providing a camera to help the education process to be easier and more effective. The project aims to help lecturers access students' information better. The project uses the IOT and AR/AI technology. The students ranked third in the competition.

In times of crisis, it is acceptable to have more questions than answers. When in crisis, all that matters is that we are learners.

Department of Information Technology



Dr. Rachappa Jopate
Lecturer, Information Technology, UTAS-A

A Perspective on Learning Experiences at UTAS-A during Pandemic

The COVID-19 pandemic has created havoc and brought unprecedented challenges to higher education and everyone's life has been influenced by the pandemic. Numerous preventive measures have been launched by the government to decrease the transmission of this infectious illness by implementing lockdowns, physical

and social distancing, preventing classroom teaching, travel bans, restrictions on immigration. Students staying in residential areas abruptly packed up their belongings and left for their homes. It was quite tough to build and sustain friendships, due to the lack of in-person activities. The transition of online learning was perceived differently by college administrators, faculty, and students, and it was the common theme across the education system during the pandemic and it has triggered the experts to have a relook at the traditional method of education and learning. From the time of its effect, the UTAS has taken several measures to continue its learning prospects and minimize its impact. New learning technologies were introduced and adopted, and suitable measures were taken to pivot classes, quizzes, other assessments, activities, and services online. Initially, students struggled to cope with modern technologies and new learning environments.

Students were in need to stay engaged for extended periods of time over audio/video calls and occasionally, it proved to be harder to clarify the doubts, especially when peers were not physically present. However, online learning offered many benefits, since it had no physical boundaries, engaged students more as compared to traditional teaching, is cost-effective, and it allowed students to study from their comfort zones, students could re-watch the class recordings, clarify doubts, and focus on the parts, which they did not understand. The university administrators and teachers learned about what students faced during the pandemic and how to move forward. Despite struggles, both faculties and students found ways to be creative and resilient and engaged in practices that could make the UTAS education system more equitable. Educators will need to continue to be creative and push themselves to embrace this opportunity to create a better, more equitable system for today's students.

References:

P. Goyal, J.J. Choi, L. C. Pinheiro, E.J. Schenck, R. Chen, A. Jabri, et al., "Clinical characteristics of Covid-19 in New York city", New England Journal of Medicine, 2020.

Alanezi & AlAzwani (2020). Future of Mobile Learning During and After Global (Covid-19) Pandemic: College of Basic Education as Case. Journal of Education and Practice, 11,, 17, 2020

Supriya Vanahalli, Preethi N, An Intelligent System to Forecast COVID-19 Pandemic using Hybrid Neural Network, 10th IEEE International Conference on Communication Systems and Network Technologies (CSNT), 2021



Ms. Mini Punnoili
HoS - MATHS

Pedagogic Path during the Pandemic: UTASA's Success Story

Change is the only constant phenomenon in human life. These changes, irrespective of being triggered by natural phenomena or by humankind always make this society adjust and adapt so that our routine life goes on. The recent pandemic is one of the worst disasters encountered by humankind in this century. Education across all levels was affected at a larger level due to this pandemic and UTAS was no exception. During such a crisis, the senior management and policymakers of this great institution ensured that the smooth and seamless transition of all pedagogic activities were properly

pedagogic activities were properly taken from direct classroom sessions (offline) to online sessions. The challenges faced by both the academia as well as the students were plenty that includes the availability of required bandwidth in remote areas of Sultanate of Oman, adaptability of teaching / instructional materials, assessment strategies that ensure equality and justification to top-performing students, evaluation strategies, etc., Microsoft Teams and Moodle (Online learning platform – Learning Management System) were very effectively used by both students as well as faculty members for this smooth transition. During the onset of the pandemic back in September 2020, both online and offline modes were efficiently managed in parallel to ensure that one of the batches which had almost completed direct classroom sessions were evaluated offline strictly adhering to the quarantine norms laid by the government of Sultanate of Oman. This was one of the most critical and successful steps taken by the UTASA in this critical time of the pandemic. Many committees of the institution such as Health and Safety Committee, Risk Management Committee, Examination Committee

worked in tandem and strictly followed the guidelines set by the Senior management. Care was taken to provide the best pedagogic resources as well as to follow rigid evaluation so that the quality of education was never compromised at any stage during this pandemic. After two long years, even though we can see light at the end of this tunnel, some lessons learned during this critical period has empowered UTASA in ensuring that online education with its own set of pedagogic methods, assessment strategies, evaluation methods with appropriate quality checks at every stage of this pedagogic pipeline are in place. As Nelson Mandela quoted "Education is the most powerful weapon which you can use to change this world," Sultanate of Oman always strives hard to empower its citizens with the best quality education through time-tested instructional methods with international quality. The UTASA has never left any stone unturned in achieving the objectives of this great nation and this pandemic has provided many opportunities to provide a supporting role to this most efficient Government of the Sultanate of Oman in this noble venture.



Dr. D Gnana Rajesh
Lecturer, Information Technology, UTAS-A

Proud to be a Teacher

The teaching profession is considered one of the most important and crucial professions. We are the reason why all other professions exist. To remind ourselves how great we are, I just listed few roles we play:

Professional: "Teachers are the most responsible and important members of society because their professional efforts affect the fate of the earth" – Helen Caldicott. The level of professionalism is expected to be high for teachers as they set an example for their pupils who take to learn from the teacher. When a student is learning, not only do they learn materialistic knowledge, but they also tend to learn various other aspects to live a sincere and well-mannered life.

Conversant: "Power does not come from knowledge kept but from knowledge shared" – Bill Gates. The basic quality that students see in their teachers is that they possess an ocean of knowledge about the field of study they teach. Teachers share the knowledge to their students in every way possible so that they can use it to build their career and succeed in their lives.

Unbiased: "The most effective teacher will be unbiased, for the chief force in teaching is confidence and enthusiasm" – Joyce Cary. Just as how each one of us wish to be treated unbiased and fairly, students also expect to be treated the same.

Friend: "A teacher is considered the best teacher if the teacher is fun, interactive and cool". A friendly attitude, eye contact, and moving away from rigid modes of communication can help build student rapport to keep the students interested and not distracted.

Motivator: "A great teacher is a motivator who sees hope and not failure for all students" – Joe Cervantes. Just like how each one of us wished to be recognized in life, students wish to be recognized for their hard work. The teachers ensure that all students are involved and given the recognition they deserve. This boosts a level of confidence and self-esteem within students.

Mentor: "A mentor empowers a person to see a possible future and believe it can be obtained" – Shawn Hitchcock. Teachers treat their students like their own children and comfort them when they are in need. We play many more roles to help them to achieve their goals in life. "Teaching is a very noble profession that shapes the character, calibre and future of an individual. If the people remember me as a good teacher, that will be the biggest honour for me" – APJ Abdul Kalam.



Ms. Blessy Jayaron Jose
Lecturer, Information Technology, UTAS-A

Remote learning environment: Pros and Cons

"TEACHERS NEED TO INTEGRATE TECHNOLOGY SEAMLESSLY INTO THE CURRICULUM INSTEAD OF VIEWING IT AS AN ADD-ON, AN AFTERTHOUGHT, OR AN EVENT."
— HEIDI-HAYES JACOBS

Distance education has gained popularity in the past two years as Covid-9 had engulfed the whole world with its hands-on education sector thus keeping

students and teachers working from home.

Though teaching and learning with a click of a mouse from the workstation have become the mainstream of education during Covid -19, its challenges have been embraced by both teachers and students thus paving the way to its solutions. Let's have a look at the advantages of remote learning.

Larger Flexibility

With remote learning, students can pursue and complete their studies from any part of the world with the use of a computer and internet connection. Students can not only attend classes but also complete their assignments and homework, clarify their doubts, attend remedial classes etc.

Avoid Commuting

Since remote learning takes place from home or other workstations, time and money spent in commuting can be avoided.

Considerable Cost-cutting

Distance learning is cost-cutting since the rate of taking distance learning is lower than face to face learning.

Comfortable Learning

Distance learning can be taken comfortably without much embarrassment (especially for shy students). Students can ask questions to their teachers in the chat box and teachers can give answers to them accordingly.

With advantages, there are challenges of remote learning which are discussed below.

Less Social Interaction

Learning within bricks and mortar provides a one-to-one interaction with peers as well as teachers. Remote learning only limits students to online learning with limited or no interaction at all.

More Distractions

With less peer interaction, those enrolled in online course might find it quite difficult to concentrate on their work thus finding it hard to keep track on their homework and assignments.

Hidden Expenses

The expenses during online education may not be too high, but still, buying computers, getting internet connection etc. might cost more. Moreover, buying additional resources such as a web camera, printers would add to the expenses.

Quality of Teaching

Even though teaching online renders all aspects of education, sometimes the teaching staff may not be comfortable with online teaching. The reason being less exposure or lack of experience with online teaching which affects the quality of teaching.

Quality of Internet Connection

Remote learning comparatively revolves around the quality of internet connection. If the internet connection is stable, then remote learning is successful else it becomes difficult for both educator and students to continue with remote learning.

Suggested Solutions

The following are some solutions to the challenges faced during remote learning.

1) Support students with instructional materials.

As facilitators, we should make it a point that our students can and have access to instructional materials.

2) Schedule extra classes or guest appearances.

Extra classes or off class hours could be conducted for students who couldn't attend regular classes online due to internet or network problem.

3) Inform students about class schedules and assignments.

It's important to have a base where students can post their queries and teachers could answer them immediately. Providing a platform where students, parents, and teachers can go to look for solutions or additional information allows meaningful learning to take place.

4) Discover new tools for distance learning.

In online classes, there are numerous opportunities available where teachers can integrate technology to teach students effectively. Some of which include creative virtual whiteboards, interactive notes, wide range of surveys, power point videos etc. These tools would keep students engaged to a far extent.

5) Introduce different teaching styles.

Students have different learning styles hence it is important to adopt different teaching styles so as to ensure that students are learning and at the same time enjoying their class.

In the end, we can conclude by saying that remote learning has advantages and disadvantages. Nonetheless, there are always remedies to the limitations of such a situation.



Mr. Urfi Mirza
Lecturer, Information Technology, UTAS-A

Contemporary Trends in IT

The growth in Information Technology (IT) industry defines its emerging trends as the way it is being followed by the

people over social media and various technological blogs. Huge development has already been done in the last three decades with the advent of Internet and it is expected to grow exponentially soon (by 2025) in this sector. As the new business trends are coming up, new IT trends will pop-up and emerge in the market for business to gain competitive advantage. The biggest challenge to IT in future is security. Security could negatively impact public networks.

The biggest problem is not the machines, it is the people involved at every level, inside and out. Something should be done to solve these problems. For example, businesses are running over the public cloud (like Amazon

AWS, Google Cloud, IBM, etc.) for faster processing, more accessibility, availability, durability, and reliability but companies are more concerned about the security of precious data whether secured while transacting over a public cloud (a cheaper and faster option for companies).

However, more technologies will be developed to simplify the way we use IT at work, home and everywhere in our life. Technologies will emerge as the world develops as our demands will change with time. So, it is up-to us to be literate and learn how to take advantage of future Information Technology. We can see that Data Science has already been evolved and being used by the Techie companies (R&D) to foresee the future trends and developments by means of forecasting the customer purchasing behaviour, sales/result predictions, patterns, etc. Deep Learning and Transfer Learning has already been used by most of the top companies to fabricate their future.

Contemporary trends in software development have been introduced and enhanced day by day by using cloud computing (AWS, GCP, Azure, etc.).

DevOps has changed the development world entirely. You have the containers that resolve your issues on the top. It is designed for the Agile style of development i.e., the Agile Development Life Cycle Model. Technologies like Big Data, IoT, Artificial Intelligence or Machine Learning, Data Science, etc. demands huge processing power, memory, and storage which is expensive initially for a company to cope with. So, companies (specially start-ups) need not to worry about the huge Infrastructure expenses, platforms (Operating Systems), and Software Applications as Cloud computing service providers solve these issues. All they must do is to take the service on cloud and that is all, you are done, these big cloud giants will take care of your business processes. They will provide you with the servers in the form of IaaS (Infrastructure as a Service), PaaS (Platform as a Service), and SaaS (Software as a Service). As services are especially useful as far as cost, quality, reliability, durability, security, support, storage, and accessibility are concerned.



Dr. Kishore Kumar P.K.
Lecturer, Information Technology, UTAS-A

Challenges Faced by Learning Community during Pandemic

C OVID – 19 has become a quite common disease in recent years. Starting in the year 2019, the pandemic has become devastating due to its enormous impact. An educational campus for a student is not only the place to become enthused in studies but also to create a social gathering and interaction nurturing one another. Education has become incredibly challenging for both student and staff community which led to various struggles in learning, having new living arrangements that made the learning process tedious. Challenges faced by students such as attending the classes online, missing out the real time exposure of teaching on campus made them acquire minimal level of knowledge.

This happened due to the abrupt shift of online mode in teaching. In fact, the transition of online learning was perceived differently by college administrators, staff, and students. Despite of these struggles, the quality of teaching is exquisitely handled by faculty members. They made the schedule meet on time without any delays as same as the offline teaching mode. In student perspective the factors influenced them more is missing out the class environment, facing internet issues while attending a lecture and health related issues due to continuous use of gadgets.

Some of the students in remote towns and villages could not receive a superior quality of internet connections during online learning. This made a disturbed way of understanding the concepts in the subjects taught. Teaching skills became more challenging in this pandemic. Faculty members faced various challenges in delivering a quality lecture on time. Black board teaching is the so-called practice as a method of traditional learning. But in this pandemic the virtual platform created to teach through online made situations more exigent.

The use of pedagogical tools for teaching helped the faculties to reach the student end. These objectives led to a blended learning in this epidemic situation. To conclude, the fall of education in this pandemic has been stabilized with various online resources used efficiently. This made the communication between the faculty and student more amicable. Still the preference to learn on campus is the only way to receive the knowledge making the teaching learning process simple.





University of Technology and Applied
Sciences - Al Mussanah Muladdah,
Mussanah, Sultanate of Oman
P.O.Box: 191, Postal Code: 314

Editor-in-Chief: Dr. Ahmed Ali Ahmed Al Shahri, Dean
Editor: Ms. Zainab Al Ma'awali, ETC-HOC
Editor: Mr. Naseeb Al Omrani, ETC-CSS-HOS
Editor: Ms. Fatma Said Al Shidi, ETC-ESS-HOS
Contributors: C & D's Coordinators
Language Editors and Proofreaders : Dr. Annie B. Domede, ELC;
Dr. Zafar Iqbal Khattak, ELC
Content Manager: Ms. Tahani Said Abid Al Saadi , ETC
Layout Artist: Mr. Jonard Jimeno Bisnar and Mr. Sameer Al Ghafri, ETC
Frontpage Photographer: Mr. Haitham Al Farsi