جامعة التقنية والعلوم التطبيقية
University of Technology and Applied Sciences
صلالة
Salalah

CONNECT

1st Edition, June 2022

CONNECT

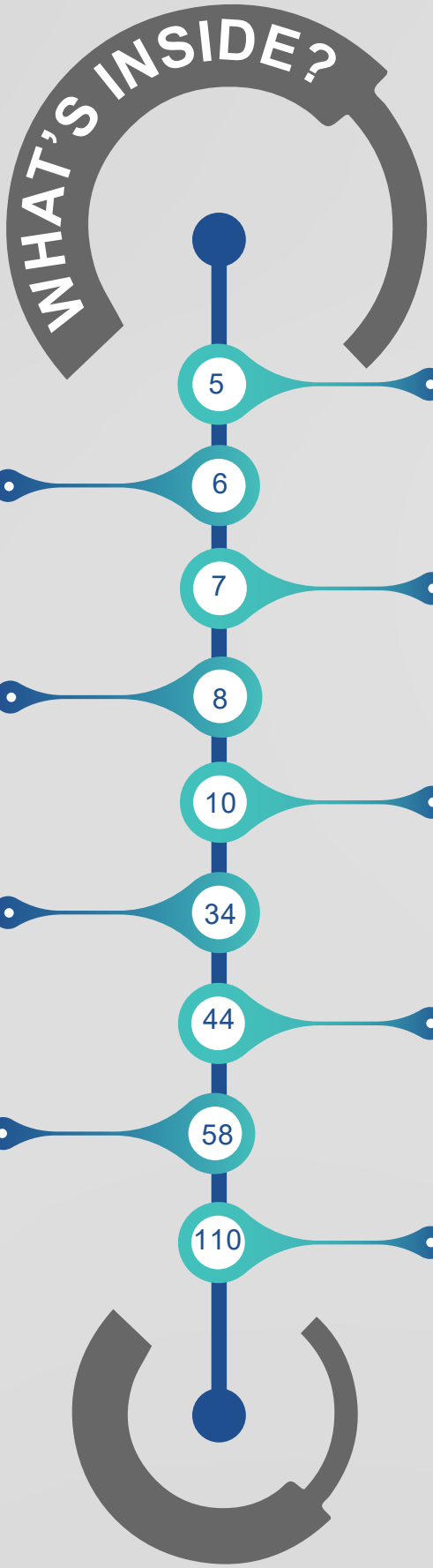
Excerpts from the Speech of

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.

About CONNECT

CONNECT means to link, to bridge and to bring together ideas, shared values and aspirations. This is the inspiration in launching the first issue of the official magazine of the University of Technology and Applied Sciences- Salalah. Each issue captures the University's dynamic spirit and encapsulates the university breakthroughs and milestones. The magazine highlights how our staff, students, and alumni connect with one another, with the industry, with the community and with the world. We aim to reflect the University's commitment to quality education, civic responsibility, research and innovation and industry-academic relationship. The pages of this magazine features different activities, accentuates the achievements, and highlights the progress and news about the University, to ignite our reader's pride in the magazine "Connect" and in CONNECTion with UTAS-Salalah and one another.



MESSAGE FROM THE COLLEGE DEAN

The certainty of change is the only factor that remains constant in a world full of unpredictability. Despite the tremendous challenges that we have faced and may continue to face in the future, we have not faltered and will always remain resolute in our commitment to excellence. Over the years, we gradually built a solid foundation and a robust structure embedded with our unwavering principles and values regardless of any unforeseen circumstances. We have always maintained that our staff are the University's most vital resource who work side-by-side with the management in validating our collective Mission, Vision, Goals and Values and in embracing our Strategic Priorities.

Nonetheless, we believe that our University's greatest achievements are still in its future. Looking and linking our series of achievements and accomplishments in the past years to its future, we are positive that we are on the way to reaching our highest potential. The level of diligence, innovation and collaboration that we have demonstrated says a lot about the cooperative spirit of the UTAS-Salalah community and are the signs of enormous possibilities for the future.

Then again, only by moving together we will move forward. This commitment to excel collaboratively is the very essence of being connected, and incidentally is the title of our first unified academic magazine (CONNECT). If there is one common theme that runs through the pages of this magazine, it is the value of connection, participation and partnership which are some of the key elements in attaining the objectives of Oman Vision 2040. The participative approach in the design and attainment of this vision will be instrumental in ensuring our success at UTAS-Salalah and enhancing the socio-economic prosperity of our beloved country, in general.

Everything is still a work in progress and when we look back at this year in the future, we will remember this year primarily as a period of development, success and progress which will be highlighted in this publication.

Finally, I congratulate and highly appreciate the team behind "CONNECT" and everyone who has contributed to the success of its first edition. This is a huge achievement and I am looking forward to more milestones.

MESSAGE FROM THE ASSISTANT DEAN FOR ACADEMIC AFFAIRS

Dr.Majdi Mohammed

Henry Ford suitably puts it in his words that “Coming together is a beginning, keeping together is progress, and working together is success”.

This academic year, delivering a high-quality education while rendering a safe environment for each one of our staff and students was the primary focus. The whole UTAS-Salalah community has been truly remarkable in its ability to adapt with flexibility to the challenges brought upon by the global crisis. Our academic staff facilitates learning at the highest level and is committed to provide education that is engaging, adapted, and relevant to this age of technological transformation. Most importantly, we ensured student-centered learning using innovative teaching methodologies and taking the extra mile in guiding our students.

It is a great honor for me to work alongside such extraordinary individuals and I am appreciative of everything they are doing for the University and for our country.

In addition to committing to the University’s core mission and vision, we are proud of how UTAS-Salalah is involved in strengthening its civic roles and social responsibilities by offering community training programs. Our outreach professional programs for the community have helped to share the University’s various resources and have taken our relationship with the community to a new level.

As we gather to recognize these and many more of our accomplishments in the past year, we are inspired anew. In the pages of this magazine, we celebrate recovery, discovery and innovation as we commit to continuous excellence and improvement. I am deeply inspired and proud to witness our academic departments work collaboratively and CONNECT with the industry as well as the community; which is also the high-standing theme of this magazine. I am as always exceptionally thankful for everything we have achieved together which is also showcased in this publication.

I would like to congratulate the members of my Editorial Board who are the team behind the success of this Magazine for a job well done. We will still be facing a lot of obstacles down the road but by remaining steadfast and committed to our core values, I am highly confident that together we will overcome it all.

Dr. Said Omar Al Mashiki
Head of Department - Engineering

Engineering Department's drive to excellence is a work in progress as it continuously inspires the students to meet the demands of fast-paced technological advancements. The world is witnessing the challenges brought about by the pandemic, climatic fluctuations, digitalization and other forms of transformational impact.

The launching of this magazine serves as an avenue and opportunity for stakeholders to showcase their talents, skills and knowledge. It would also be a platform for expressing their views towards strategic and paradigm shift.

The Engineering Department commends the effort of the team behind the birth of "CONNECT" and we look forward to a series of inspiring and motivating achievements.

DR. GHANIM BAKHIT SHAMMAS
Head of Department - Business Studies

The global outbreak of the COVID-19 Pandemic has created the largest disruption in our educational system but was an opportunity to bring out the best in us. It fostered an environment of cooperation among the management and staff. It pushed us to explore new systems and mechanisms of teaching and learning. I commend the team behind "Connect". The work that you had put into this initiative truly embodies the core values of professionalism and pursuit of knowledge and excellence. The article contributions from both staff and students will hopefully create social awareness and instill a sense of unity amidst adversity. May this inspire and motivate everyone to become better teachers, advisors, and contributors to the overall success of our university.

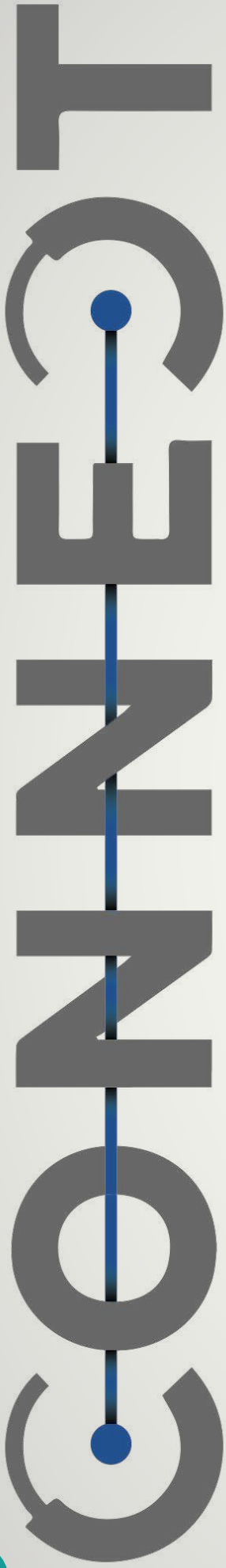
Dr. Fatima Abdullah Al Shanfari
Head of Department - Information Technology

Being an academician means a lot to me and to all of those who choose to be so as their main job in life.

"Teaching is a very noble profession that shapes the character, calibre, and future of an individual. If people remember me as a good teacher, that will be the biggest honor for me'', APJ Abdul Kalam

The most difficult times we have experienced were during the last two years of the pandemic. Huge changes were deployed in the mode of studies and other related procedures. But our staff are highly receptive, flexible, and accepted the challenges with proficiency. They tried their level best to maintain the quality and the same performance as we had before with whatever resources available at that time. We have achieved many goals together and we will continue the same.

I wish everyone good luck and hope to meet as many of you who have read these humble words that I'm very happy to share with you all.



THE EDITORIAL BOARD

The editorial board is ecstatic to welcome you all to the first edition of the university wide magazine-"Connect". This magazine embodies the collective effort of all the team members and all those who contributed in whatever way they can to the success of its first launch. Truly, this has made our magazine a true manifestation of our primary aim: to unify and connect the management, staff and students of the entire university across all departments. With this integration, we will be able to connect to the society, to the community, the industries, with zeal and appreciation on the importance of collaborations and partnerships as a vital tool in achieving success in all our undertakings. The past two years have proven to all of us that if we are to thrive in this challenging environment, we need to build bridges not walls, networks and not stalls. As we move on and sail through uncharted waters, let us remind ourselves that we are all in the same boat. We must row together in the same direction, going forward to explore new horizons.

We send our sincere gratitude to the university management headed by our College Dean for their utmost support. We also want to give our profound thanks to everyone who has contributed to the overall success of this endeavor. Together, let us continue to connect, to persevere, and to aim for higher goals towards success and excellence.

We wish you a pleasant reading!

The Editorial Board

Magazine Team

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University Breakthroughs and Milestones

Life's greatest difficulties always happen right before life's greatest breakthroughs – *Billy Cox*

The past two years have manifested to us all that sometimes, it takes a massive breakdown to have a monumental breakthrough. The steps we have taken despite the enormous challenges we have faced have emboldened us, have revitalized us, and have cultivated our grit, our strength of character, our resilience and our commitment to achieve our goals.

In the next few pages, allow us to showcase the major university achievements and accomplishments for the academic year of 2021 -2022. This year, we were able to sail through and accomplish a number of laurels.

Let these pages be a celebration of the university's breakthroughs and milestones.

A Memorandum of Understanding or Cooperation expresses a convergence of will, a congruence of goals, and a shared commitment to push for excellence in all related undertakings. The University of Technology and Applied Sciences has inked MOUs and MOCs with several industries as it acknowledges the importance of these collaborations and its beneficial impact to its students, staff and all its stakeholders.

MOUs and MOCs with the Industry

Agreement with the OQ Group to Construct a Research and Development Laboratory in the Engineering Department

The University of Technology and Applied Sciences (Salalah College of Technology) has signed a cooperation agreement with the OQ Group to construct a Research and Development Laboratory for the Engineering Department. The signing of this agreement stems from the principle of strengthening the strategic partnership in the fields of technical and applied sciences and enhancing cooperation between academic institutions and private sector institutions. The agreement was underwritten by the Vice-Chancellor of the University of Technology and Applied Sciences, His Excellency Dr. Saeed bin Hamad Al-Rubaie, and by Dr. Salem bin Saif Al-Hudhaili, CEO of Alternative Energy - Chairman of the Social Investment Projects Committee at OQ Group.

His Excellency Dr. Saeed Al-Rubaie elaborated that this type of partnership between the private sector and higher education institutions is of paramount importance, as it creates opportunities for integration between the two sectors, and contributes to raising the level of readiness of our graduates from the education sector. It is also in support of scientific research and innovation which constitutes one of the priorities and intended directions of Oman's 2040 vision.

Our College Dean, Dr. Mohammed bin Rashid Al-Maamari confirmed that the signing of this agreement is based on the principle of strategic partnership between the public and private sectors, through which the university is dedicated to the process of qualifying its students and providing them with scientific and practical skills that are in line with the needs of the labor market. The laboratory, which will be built by OQ Group, will also assist academic researchers in conducting qualitative research in the field of chemical engineering and will, in addition, aid students in the successful completion of their graduation projects, as well as contributing to serve the overall educational process at the University.

UTAS-Salalah College of Technology Awarded as the Best Active Huawei ICT Academy

Huawei ICT Academy recognized UTAS-Salalah as one of the Best Active Academies who achieved the highest number of instructors to receive Huawei Certified ICT Associate (HCIA) in different ICT courses for the year 2021. The award was bestowed during the Huawei ICT Academies gathering in Muscat last March 29, 2022. The event was co-hosted by the Ministry of Transport, Communication and Information Technology of Oman and Omantel.

The Huawei ICT Academy is a school-business partnership that includes higher education institutions and aids in the development of local talent ecosystems and the development of future ICT leaders. Since its introduction in 2013, Huawei has developed a talent supply chain that spans the full process of learning, certification, and employment by extending the cooperation mechanism between colleges and organizations. Huawei ICT Academies have benefited the lives of over 5,000 students in Oman to date, helping them to gain critical ICT skills.

On May 2021, UTAS-Salalah signed a Memorandum of Collaboration (MoC) with Huawei Tech Investment (Oman) LLC through a video conference which aims to enhance joint cooperation and exchange of knowledge by providing university students with the Huawei ICT Academy curriculum and providing the latest technologies in various fields of the 4th industrial revolution and fifth-generation technology. The MoC likewise included providing advanced training courses through information and networks programs approved by Huawei for academic staff, technical staff, and students. The MoC was signed by the College Dean, Dr Mohammed Rashid Al Mamari and Mr Robin Chen, CEO of Huawei Technology Investments in the Sultanate.

The University of Technology and Applied-Sciences-Salalah has signed a collaborative agreement with Hawthorn-Muscat English Language Center to establish IELTS Registration and IELTS Testing Services at UTAS-Salalah. The agreement was signed by the College Dean, Dr. Mohammed Rashid Al-Mamari and Mr. Suhail Mohammed Bahwan, the Center Manager of Hawthorn-Muscat in the presence of the Assistant Dean for Academic Affairs, Head of the English Language Center and the Heads of Sections of the English Language Center.

Hawthorn-Muscat English Language Center is engaged in the business of providing and marketing IELTS test registration services, and facilitating IELTS examination venues and with the signed agreement, UTAS-Salalah has become Hawthorn's official exclusive Offsite Testing Venue and Registration Agent within the Dhofar Governorate.

The agreement aims to assist the students of UTAS-Salalah who hope to register and take the IELTS exams and shall also be opened to everyone from the Dhofar Governorate.

UTAS-Salalah College of Technology is Hawthorn's Official Exclusive Offsite IELTS Testing Venue and Registration Agent in the Dhofar Governorate

Student and Staff Achievements

Success is the sum of small efforts being repeated day in and day out – *Robert Collier*

Our students and our staff are our ultimate pride. Their successes will always be a source of inspiration to persevere and aim for higher goals, day after day, each step of the way.

In these pages, we take pride in the achievements of our students and staff with a fervent hope that their accomplishments will motivate everyone to always strive for excellence.

IT Students Advanced to the International Finals in UK-OMAN Hackathon Challenge

A team composed of IT students namely: Ms. Fatima Naif Fail Al Aamri, Ms. Salma Ali Mahad Akaak, and Mr. Abdul Azeez Mohammed Ali Issa Al Mashani, brought honor to the IT Department and the entire UTAS-Salalah community for being selected as one of the International finalists in the UK-Oman Hackathon Challenge Event. The team supervisors were Dr. Venkateswaran R., Dr. Bernard Ugalde, and the IT-HOD, Dr. Fatima Al Shanfari.

UK Oman Digital Hub, in collaboration with Plexal, CyLon, Imperial College Business School, Oman's Ministry of Transport Communications and Information Technology (MTCIT), and AL JABR organized the event. They launched Innovate Oman: an initiative that will help digital innovators develop solutions to the significant challenges faced by the government and the industry. This effort will deliver hackathons, workshops, mentoring, and accelerators.

The team surpassed the two (2) virtual programs which aimed at assisting cyber security firms and improving cyber skills:

Innovate Oman Hack (October and November 2021) The team defined their ideas and developed a prototype and a pitch through guided workshops in response to the challenges set by the Omani government and industry related to ransomware and the marine sector.

Innovate Oman Cyber Accelerator Program. (January 2022) The team got one-on-one mentoring and training with 14 other cyber companies and took part in a 20-day sprint to help them advance their ideas and grow their early-stage cyber enterprises. The team successfully presented their project entitled "Ransomware- How Might We Detect and Predict this Attack to Protect Government Institutions and Employees" to the industry and government representatives.

Accounting, Chemical and IT Students were Finalists in the Injaz Oman Competition and Won the Best Advertisement Award

A team composed of Accounting students, Chemical Engineering and IT of UTAS-Salalah secured a spot in the finals of the 10th Student Company Competition by Injaz Oman. Moreover, the team also won the “Best Advertisement Award” on their innovative project of converting coconut husks into eco-bags. The team landed in the Top 15 finalists out of 90 student teams who participated across Oman. It was the first time in the history of the competition that a team from Dhofar region reached the Top 15 in the finals. The awarding ceremony was held at the Oman Convention and Exhibition Center on 21st of September 2021.

Team Members:

Wajdan Ahmed Salim Al Hadhari

Zeena Basel Mohammed Al Rawas

Mallak Mohammed Amer Al Mahri

Fatima Abdul Rasheed Moosa Albalushi

Sarah Khalid Abudullah Alnajjar

Amira Ahmed Abdullah Al-Bas

Muna Ali Said Ahmad Alshahri

IT Students Received “Best Research Paper Award” at the Second Student IT Research Exposition (SITREX) Conference

Several IT students from the University of Technology and Applied Sciences (UTAS)-Salalah participated in the Second Student IT Research Exposition (SITREX) Conference organized and held at the UTAS-Shinas on the 31st of March 2022.

Mr. Mansoor Ahmed Bakhit Al-Hadhari and Mr. Aseel Said Ismail Dashesha, B.Tech students under the Networking Specialization, presented their research paper entitled “IoT Based Data Center Security Management System.” The team received “Best Research Paper Award” for winning 1st place among all research papers presented by the participants from various private, government universities and colleges in Oman under the supervision of Mr Devarajan V.

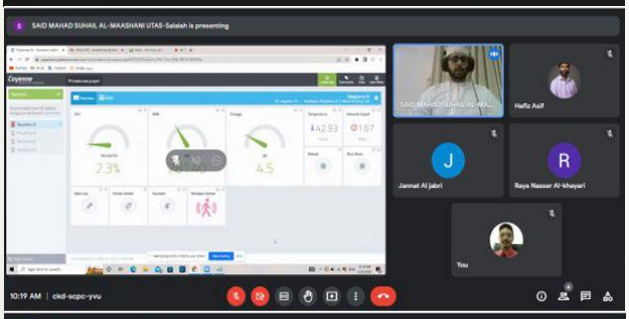
IT Student Won Third Place in the Tenth Annual University of Technology and Applied Sciences Graduation Projects Competition (UTAS GPC - 2022)

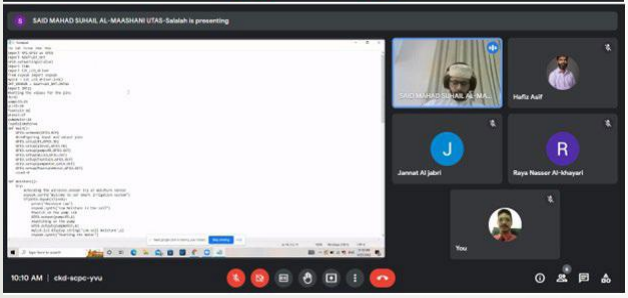
The Tenth Annual Graduation Projects Competition 2022 (UTAS GPC-2022) participated by all UTAS branches was conducted online on the 26th of May 2022 at the UTAS – Sohar campus. This annual competition is intended to showcase the projects developed by Information Technology students from all UTAS branches since 2012.

Among the 23 projects that competed all over UTAS branches for AY 2021- 2022, the project entitled “IoT based Smart Irrigation System with Solar-Powered Wireless Sensor Nodes” developed by Mr. Said Mahad AL-Maashani, a Bachelor student in Networking specialization under the IT department received the Third Prize. This project is under the supervision of Mr. Sunil Thomas Karickom, IT lecturer.

The project is a remotely managed automatic system intended to control the water flow for the plants and trees on the farm according to the soil moisture. The system can switch on a fountain or sprinkler as per the temperature conditions of the farm. The highlight of this system is that it uses solar-powered wireless sensor nodes which are developed after conducting a lot of research with the traditional systems. The sensors are used to detect the moisture level in the farm, so it can be installed anywhere on the farm without the hassles of wiring and can be repositioned according to the requirement. It can be installed in remote places where the electric lines are not available and can be monitored anywhere in the world using the internet.

The said project is on the process of patent application.





UTAS-Salalah Students Chosen as Finalists in the Fourth Youth Research Forum at Qatar University

The Qatar University Young Scientists Center) QUYSC (organized the Fourth edition of its Youth Research Forum on the 9th to10th of March 2022 sponsored by Qatar University.

The Chemical Engineering students successfully took part in the said forum and made it to the final round. The research project entitled" Bio-coagulants for the Removal of Metals from the Dairy Wastewater Industry ".The fundamental goal of the research project is to create a cost-effective and environmentally acceptable method of converting industrial effluent into clean water that can be used for water recharge ,plant watering ,and agricultural sector consumption in the Dhofar region.

CHEMICAL ENGINEERING PARTICIPANTS	MENTORS
Ms .Muna Amer Ali Azan Al Amri	Dr .Rakesh Namdeti
Ms .Amal Said Amir Mubarak Kashoub	Ms .Arlene Abuda Joaquin Mr .Uma Reddy Meka

Moreover ,the following B. Tech students under the Networking specialization of the Information Technology Department also actively participated in the said international event. They were chosen as finalists of the said forum .They submitted their research paper entitled" IoT Smart Home System for Saving Electricity".

The research competition event was attended by the GCC (Oman,UAE,Qatar,Saudi Arabia ,Kuwait ,and Bahrain) and neighboring countries such as Iran ,Morocco ,and Palestine. This research conference strives to promote scientific research culture in younger generations around the globe while also confirming their role in influencing change. It also offers opportunities for growth and advancement via scientific research and innovation.

Information Technology PARTICIPANTS	MENTORS
Ms .Sarah Khalid Abdullah Al-Najjar	Mr .Sunil Thomas Karickom
Ms .Salma Ahmed Mahad Al-Maashani	Dr .Venkateswaran R.

Chemical Engineering Students Clinched a Spot in the 9th Undergraduate Virtual Research Competition Finals at Abu Dhabi University

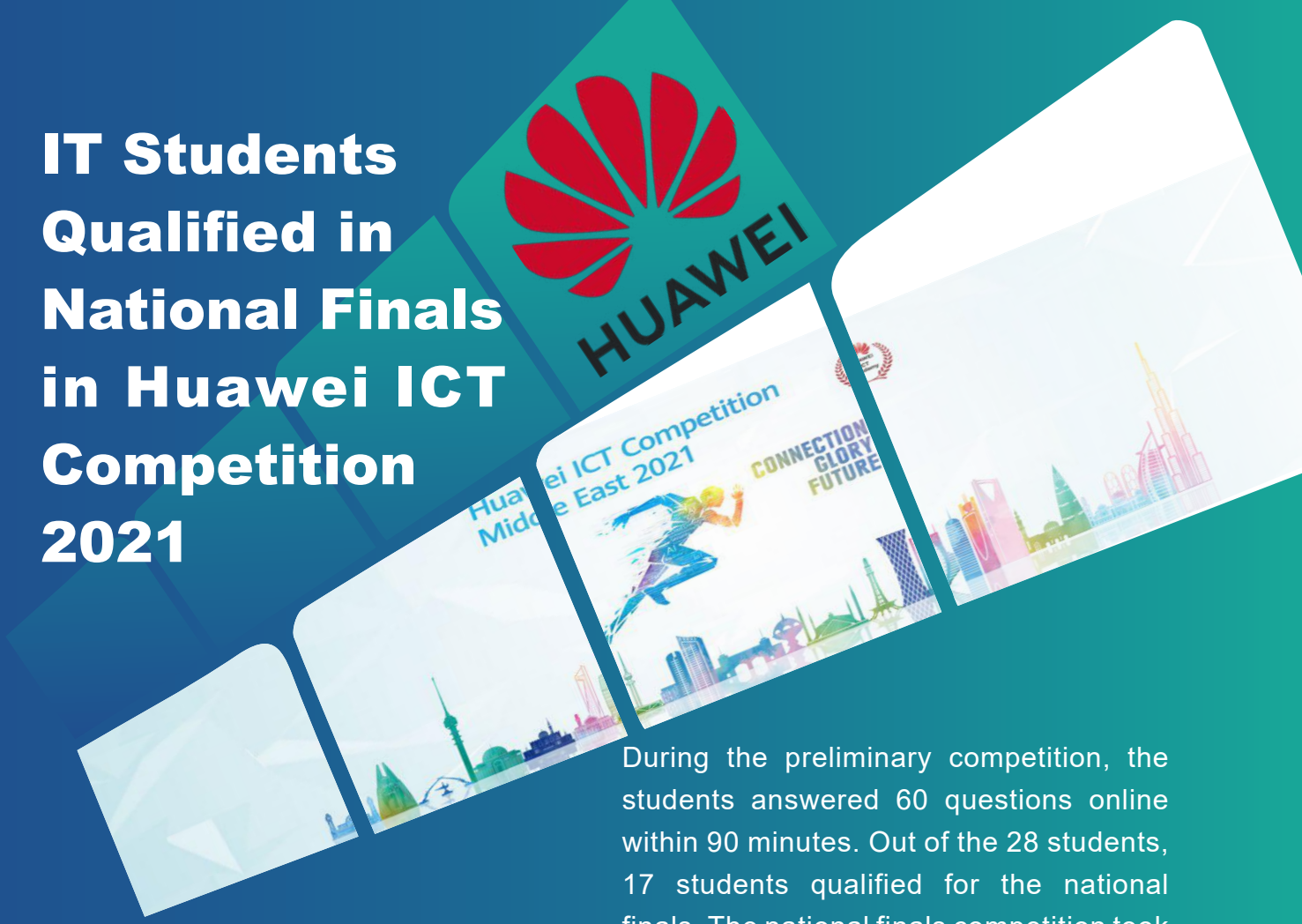
A team of students from the Chemical Engineering section was chosen as one of the finalists in the 9th Undergraduate Virtual Research Competition at Abu Dhabi University. The students submitted a research paper entitled “Application of Artificial Neural Networks (ANN) and Response Surface Methodology (RSM) for Dye Removal by a Novel Bio sorbent.”

The primary goal of the research was to remove hazardous dyes present in industrial wastewater before they are disposed of because they are harmful to human health and aquatic life. Thus, Musa acuminata (banana leaves) was used as a bio sorbent in this study, to remove Methylene Blue from a synthetic solution. The team was ably mentored by Dr.Rakesh Namdeti and Ms.Arlene Abuda Joaquin.

The team comprised of the following students:

1. Ms. Enas Said Bakhit Zidan Al Barami
2. Ms. Rawan Ali Mohammed Ba-Qawair

IT Students Qualified in National Finals in Huawei ICT Competition 2021



The IT Department has been actively joining the Huawei ICT Competition since 2018. In the Fifth Edition of Huawei ICT Competition Middle East 2021, a total of 28 IT students from UTAS-Salalah showed their eagerness and joined the national preliminaries in October 2021. During the preliminary competition, the students answered 60 questions online within 90 minutes. Out of the 28 students, 17 students qualified for the national finals. The national finals competition took place on November 5 -10, 2021, where participants answered 90 questions online in 90 minutes.

Below is the list of students who qualified in the national finals and the coaches of the said competition.

SN	Student Name	Coaches
1.	Hussein Mohammed Ahmed Al-Maashani	Mr. Devarajan Veerasamy Mr. Jonathan Tambaoan Dr. Bernard Ugalde Mr. Sunil Thomas Karick-om Mr. Yashir Ambula Mr. Ayaz Mohiuddin Mr. Suresh Palarimath Mr. Suresh Kumar Dr. Chithik Raja
2.	Shahd Mohammed Musallam Al Barami	
3.	Noof Naif Fail Al Aamri	
4.	Abdullah Musallam Salim Al-Amri	
5.	Khoula Ahmed Mohammed Al Maalam	
6.	Wafa Said Ahmed Al Shanfari	
7.	Anfal Salim Said Jadad	
8.	Fatima Naif Fail Al Aamri	
9.	Afrah Abdallah Rashid Al Balooshi	
10.	Rowaiya Said Bahata Masan	
11.	Nada Mohammed Ahmed Al Ghassani	
12.	Abdullah Amjad Eid Bait Habdha	
13.	Salma Ahmed Mahad Al-Maashani	
14.	Abdullah Salim Rajab Al-Ojaili	
15.	Ghada Mohsin Ahmed Al-Haddad	
16.	Mansoor Ahmed Bakhit Al Hadhri	
17.	Ali Yahya Mohammed Ghawas Al Kathiri	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5th Sohar University Research Conference 2022

Sohar University organized its Fifth Research Conference virtually on the 19th of January 2022 with the theme "Promoting Human Well-Being through connecting communities, emerging and advanced technology, enterprise, and industry, sustainable environment, developing student's research and empowering national skills." Students and professionals from various universities inside and outside of Oman participated. Several IT students from UTAS-Salalah submitted their research projects. The submitted papers qualified for the final presentation which enabled the students to present their papers during the actual conference.

Mr. Sunil Thomas Karickom, Ms. Melissa Juanillo, Mr. Hansel Delos Santos, and Dr. Nitesh Nandakumar were the respective research supervisors of the following IT students who participated in the said conference.

SN	Student Name	Research Project Title
1.	Sarah Khalid Abdullah Al-Najjar	IOT Smart Home System for Saving Electricity
2.	Salma Ahmed Mahad Al-Maashani	
3.	Maryam Said Saleem Bait Shajanah	Maghsalati: A Pickup and Delivery Laundry Management System
4.	Dhaya Ahmed Al Maalam	
5.	Aayah Awadh Ahmed Al Yafai	IoT Patrolling Robot for Security Services
6.	Asila Said Ahmed Al-Shehri	

National Level Student Virtual Symposium

Mr. Abdullah Mohammed Salim Al Hakmani, a Diploma Second Year student (Electrical) at UTAS – Salalah presented a research paper entitled "Scope of Mathematics in Industries" in the 6th iTech Marathon 2022, a 1 day National Level Student Virtual Symposium on "Artificial Intelligence Technologies and Mathematical Modeling for Socio-economic Development towards Oman Vision-2040."The research paper presented was one of the 16 articles accepted from five (5) institutions. It was conducted by the Information Technology Department at UTAS IBRI on the 24th of March, 2022. The symposium aimed at providing a platform for university and college students to share their research-based or project-based ideas towards Oman Vision 2040 and unite young Omani researchers to impart their ideas and applications on AI and mathematical modeling. The student was guided by Mr. Shijo Pushpan, Lecturer, Mathematics Section-IT Department.

Second Student IT Research Exposition (SITREX) Conference

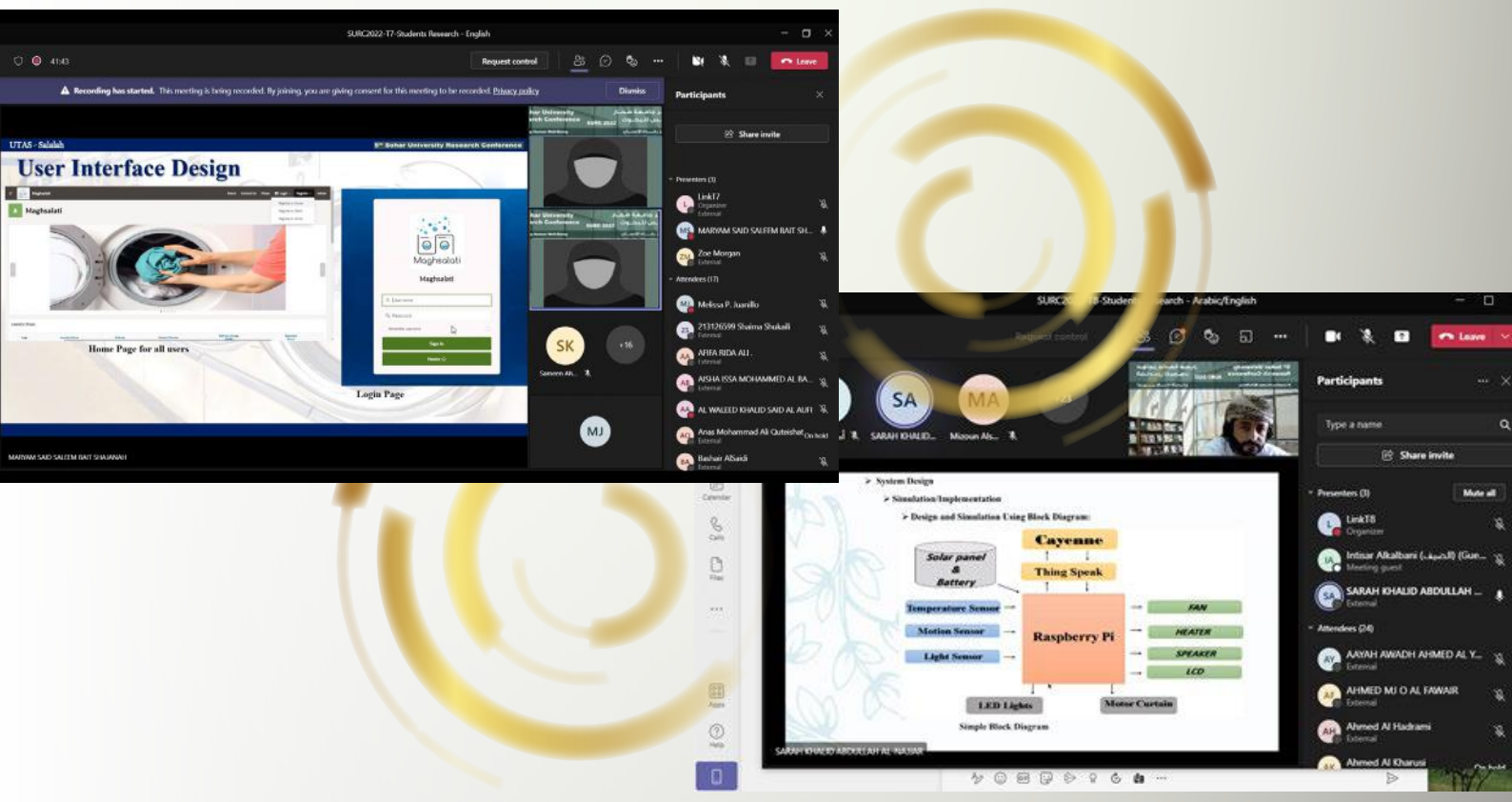
Several IT students from the University of Technology and Applied Sciences (UTAS)-Salalah participated in the Second Student IT Research Exposition (SITREX) Conference organized and held at the UTAS-Shinas on the 31st of March 2022.

Each team was supervised respectively by the following research supervisors:

Mr. Sunil Thomas Karickom, Mr. Ayaz Mohiuddin, Mr. Devarajan Veerasamy, and Mr. Mohammed Ashik. Dr.R.Venkateswaran also provided research guidance.

SN	Student Name	Research Paper Title
1.	Said Mahad Al-Maashani	IoT Based Smart Irrigation System
2.	Ali Mohammed Al-Shehri	
3.	Waad Ali Al-Kathiri	
4.	Sarah Khalid Abdullah Al-Najjar	IoT Based Smart Home
5.	Salma Ahmed Mahad Al-Maashani	
6.	Umaima Eid Awadh Darwish	Automatic Emergency Rescue Ambulance System
7.	Khoula Ahmed Mohammed Al Maalam	
8	Nada Mohammed Ahmed Al Ghassani	Smart Energy Meter Monitoring System
9.	Ruaa Said Moman Ali Ali Suleiman	

UTAS-Salalah Students Presented Research Papers in Various National Conferences



The IT Department joined the NASA Space Apps Muscat Hackathon 2021, held on October 2- 3, 2021, at UTAS-HCT. The IT students composed of 2 teams were all selected as semifinalists.

Challenge, the largest global hackathon on earth. There were 28 challenges prepared. Each team selected one challenge and solved it.

One team from the IT Department selected Space Quest: The Game. The challenge was participated in by 153 teams throughout Oman. The other team joined the Seeing the Unseeable-Viewing Bugs from Space challenge, where 64 teams from all over Oman competed. With the respective challenges chosen, all the participating teams solved the challenge and submitted their solutions. These were evaluated and later short-listed. The IT Department teams were all included in the said list. They successfully presented the solutions to their respective challenges online.

The teams were under the guidance of Mr. Suresh Palarimath and Dr. Bernard Ugalde.

Buggy BugOm	SpaceOm
1. Ms. Fatima Naif Fail Alaamri 2. Ms. Fatima Abdul Rasheed Moosa Al Balushi 3. Mr. Ali Omar Eidroos Baomar	1. Ms. Shouq Amer Suhail Almashani 2. Ms. Sarah Khalid Abdullah Al-Najjar 3. Ms. Fatima Abdul Rasheed Moosa Al Balushi 4. Mr. Ali Yahya Mohammed Ghawas Al Kathiri 5. Mr. Amer Mohammed Said ALmasahli

IT Students Reached the Semifinal Round in NASA Space Apps Muscat Hackathon 2021

NASA Space Apps Muscat is a local Hackathon for innovators interested in space science and exploration. Participants developed creative solutions for the different challenges that face Earth and space. Winners got qualified to participate in the International Hackathon. “The Power of 10” is the theme for Space Apps 2021 in honor of the tenth annual NASA International Space Apps

Three students from Chemical, Electrical and Architectural Sections of the Engineering Department namely Ruaya Hashim Awadh Bait Al zeen, Marwan Adam Salim Al-Mashani and Ahmed Mustahil Ahmed Akaak and one student from Markting section, Abarar Ghanim Abdullah Alyafai were selected for EIDAAD National Internship Program for the Academic Year 2021- 22.

A total of 10 students (5 from Mechanical, 3 each from Architectural and Chemical and 1 from Electrical Engineering and 1 from Marketing) submitted their applications for the EIDAAD program for the Academic Year 2022 -23. EIDAAD is a National Internship Program aimed at preparing a national workforce with the necessary skills to compete and comply with the labor market. The program is made possible through a collaboration between the Ministry of Higher Education, Research and Innovation (MoHERI) and Petroleum Development Oman (PDO).

Engineering Students and a Business Student Selected for EIDAAD National Internship Program for AY 2021-2022

Engineering Department Staff Invention Granted a Patent by the Commissioner of Patents

AN IOT BASED LITHIUM-ION BATTERY MANAGEMENT FOR MICRO MOBILITY (Patent number: 2021104264) – Australian Government

The Commissioner of Patents granted the above patent on the 25th of August 2021 and certified that project had been registered in the Register of Patents. The patent received relates to an IOT-based device for lithium-ion battery management for micro-mobility. The proposed device is a patch between the battery and the microcontroller to monitor the real-time power supply through recharging or energy harvesting technology. One of the inventors of the device is Dr. Paulian Kumaradhas, an Engineering Department staff.

Below is the complete list of the inventors:

Paulian Kumaradhas; DANABALA, NIRMALA; N., Vinayaka; Kumar, Asheesh; P., Rathnakumar; P., Pathalamuthu; Senthilkumar, R. Uma; Ali, Zeeshan; J., Jabinth; BeriVenkata, Himasekhar; B., Sathishkumar; G., Padmanabhan and A., Joseph.

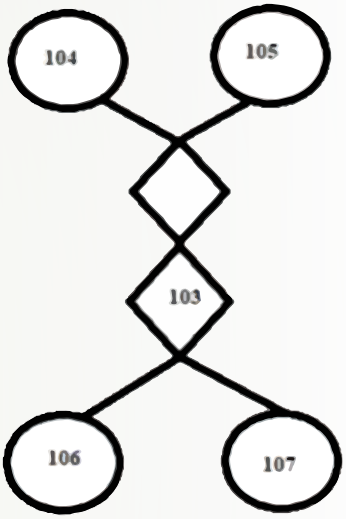


Fig: Process Flow Diagram

Upon establishing a connection between the battery (102) and microcontroller (103), the voltage sensor (104) and the current sensor (105) sense the voltage and current values respectively. The microcontroller sends the sensory data to the on- board configuration to calculate the present power output and relative power output from the battery (102). Further the microcontroller (103) sends the real time sensory data to the IoT cloud through RF communication (106) and the IoT cloud segregates the data received and plots a form of graphs illustrating the present power output and relative power output related to the past.

STEERING WHEELS WITH DIZZINESS DETECTION (Patent number: 111689) – Indian Government

The Patent Office of the Government of India granted the above design patent and certified that the design of the project had been registered in the Patents Office.

Below is the complete list of the inventors:

Dr. Abhishek Dubey, IT Department, UTAS-Salalah

Dr. Rajesh K. Shukla, Professor, OIST, Bhopal, India

Dr. Anjana Pandey, Associate Professor,RGPV, Bhopal, India

Ms. Namita Shukla, India

Information Technology Staff Invention Granted a Design Patent by the Government of India

IT Department Staff Passed the Huawei Certified ICT Associate (HCIA) Certification Exams

Huawei provides advanced training courses for the IT academic staff, technical staff, and students as part of the Memorandum of Collaboration (MoC) between Huawei Tech Investment LLC and the University of Technology and Applied Sciences-Salalah. In line with this, a series of online training workshops were conducted by Huawei ICT Academy for the IT Department staff last September-October 2021.

The approved training courses focus on the latest technologies in the 4th Industrial Revolution and 5th generation technologies. These include HCIA-Cloud Service, HCIA-Security, HCIA-Datacom, HCIA-5G technologies, and HCIA-Artificial Intelligence Technology and Application.

Along with the training, Huawei has given free exam certification vouchers for the HCIA certification exams. The IT staff who passed the certification exams are added to the pool of coaches for the IT students for future Huawei ICT competitions and can be tapped as one of the ICT Academy instructors.

The newly HCIA certified coaches are:

HCIA - Cloud Service

1. Mr. Suresh Kumar
2. Dr. Abhishek Dubey
3. Mr. Devarajan Veerasamy
4. Dr. Venkateswaran R.
5. Mr. Suresh Kumar Palarimath

HCIA-Security

1. Dr. Venkateswaran R.
2. Mr. Suresh Kumar Palarimath
3. Mr. Yashir Ambula
4. Mr. Devarajan Veerasamy

HCIA-Artificial Intelligence

1. Dr. Bernard Ugalde
2. Ms. Jasmin Tumulak
3. Ms. Marian Malig-on
4. Mr. Suresh Kumar Palarimath

Indeed, the collaboration between the industry and academe provides avenues to exchange knowledge and joint cooperation which benefits all stakeholders.

CONNECT


University of Technology and Applied Sciences-Salalah
1st Edition, June 2022
CONNECT

Staff Project Initiatives for UTAS-Salalah

Tutorial Booking System (TBS)

The Tutorial Booking System (TBS) is a web portal intended to manage the booking of tutorial classes for UTAS-Salalah students. This initiative aims to help students improve on their academic performance. Using the portal, students can see available courses offered along with their corresponding schedules, tutors, and venues.

This project was conceptualized by the IT Department headed by Dr. Fatima Al Shanfari, in the summer of 2021, with the support of the administration and management headed by Dr. Mohammed Al Mamari, Dr. Majdi Mohammed Bait Ali Sulaiman, and Mr. Khalid Abdullah Salim Muflah. This realization came into reality with the collaborative efforts of the following members of the development team:

Staff Team Members:

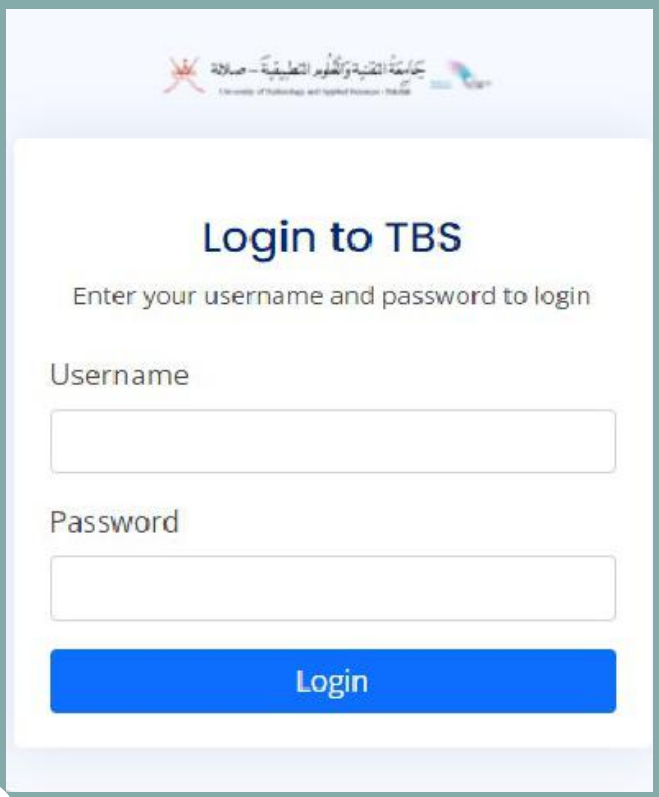
1. Mr. Mussallam Ahmed Al-Mashani
2. Mr. Junn Eric Timoteo
3. Dr. Bernard Ugalde
4. Ms. Lincy Grace Kanagaselvi
5. Mr. Allan Salburo

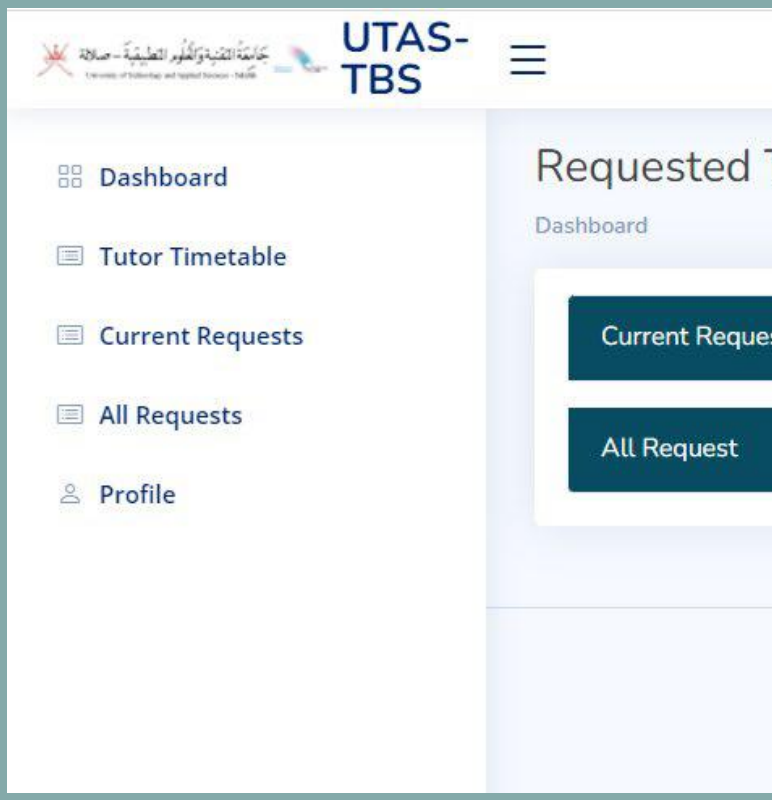
Smart Garbage Bin Project

The Smart Garbage Bin, developed by the Engineering Department, automatically opens the bin cover to allow the entry of waste materials when its ultrasonic sensor detects an object near the bin cover. It also has a sensor to measure the level of waste inside the bin and it will send a signal if the bin is full. It has a gas sensor to detect objectionable odors, and if the odor level passes a threshold, the system will send a signal to empty the bin. The status of the garbage bin can be monitored from a web browser or from a mobile phone.

The said project is made possible through the collaborative ideas and efforts of the following team members:

Team Leader:





Dr. Said Omar Al Mashiki, Head of the Engineering Department

Team Members:

1. Ar. Mohammed Al Maashani
2. Dr. Sellappan N
3. Dr. Nurul Hasan Shaikh
4. Er. Armando Lojo Hipolito
5. Er. Jamin Encinas Santiago

Fabricated Display Boards and Barricades

Staff from the Mechanical Engineering section took the initiative of preparing acrylic display boards comprising of 75 and 150 double-layers with 150 pieces of A3 and 300 pieces of A4 sizes. Moreover, the same team constructed 25 pieces of barricades for installation on the college campus at specific locations. These barricades act as warning devices that alert others of the hazards and used to control traffic, both vehicular and pedestrians.

The team is comprised of the following staff and trainees:

1. Dr. Kumaradas. P
2. Mr. Armando Lojo Hipolito
3. Mr. Rami Mohammed Masoud Al Mashaani
4. Mr. Mohammed Hassan Abdullah Al Hafeedh

The Year That Was- Our Activities and Undertakings

The University of Technology and Applied Sciences-Salalah continuously strives to integrate a holistic approach in our educational structures and mechanisms. We believe that teaching and learning should not be limited to the four walls of the classroom.

We always encourage our staff and students to “think outside of the box” and to constantly push for excellence in all facets of their academic and extra-curricular endeavors.

In these pages, we highlight a few of the many activities organized by our staff and students. A total of 136 activities, of which 53 are involving students and 83 are staff related for the AY 2021- 2022, Semester 1 & 2 - honoring the collective efforts and team spirit that they have shown and ultimately contributing to the success of these events.

CELEBRATION OF UTAS-SALALAH'S GRADUATION CEREMONY

The University of Technology and Applied Sciences-Salalah marked an institutional milestone in holding its Graduation Ceremony on March 16th, 2022 at the Sultan Qaboos Youth Center-Salalah. Under the Patronage of the College Dean, Dr. Mohammed Rashid Al-Mamari, the graduation of One Thousand and Seventy-Five (1075) students were conferred from the Engineering, Business and Information Technology specializations.

The momentous occasion was graced by the presence of the members of the University Management, honored guests from the different educational institutions, public and private sectors and the academic and academic support staff of the College.

On his commencement speech, the College Dean congratulated the graduates on their well-deserved success and expressed his pride on their achievements. The Dean likewise relayed some of the University's major accomplishments in the previous academic years which represent a culmination of the University's progress.

Ebtekarthon Competition

Under the patronage of Mr. Nasser Al-Malki, Director General of Raysut Industrial City, and in the presence of the Assistant Dean for Academic Affairs and the Assistant Dean for Student Affairs, the Entrepreneurship and Innovation Department (EID) of the University of Technology and Applied Sciences-Salalah celebrated the achievements of students who participated in the «Ebtekarthorn Competition.»

By showcasing students› original ideas, abilities, and skills, Ebtekarthorn hopes to build an inventive and entrepreneurial culture. The members of the arbitrators› committee were carefully chosen from the corporate and public sectors to screen and pick the finest project ideas offered by students based on a set of criteria that aligned with Oman Vision 2040.

The competition›s arbitrators were led by Mr. Salim Kashob of «Riyada.» The sponsoring firm «Labelle» was recognized, as well as the strategic partner «Riyada,» the Public Authority for Medium and Small Enterprises.

IT Festival 2022 Celebration

The Information Technology Department made another remarkable IT Festival celebration, conducted from the 20th to 29th of March 2022. Blended activities were conducted online and offline. The department invited international speakers, and the activities and competitions conducted were organized and hosted by every section and specialization which were actively participated by students from the different branches of UTAS.

The activities conducted include a course project exhibition, motivational talks from invited alumni and representatives from the industry sector and recognition of outstanding students. Student entrepreneurs likewise participated and showcased their businesses such as ELECTRO.M, Let›s Bake, Patria Cafe, Rina Cookies, M Home Sweets, and Oyya Ice Cream & Coffee.

The festival received full support from the Dean, Dr. Mohammed Rashid Al-Mamari who gave the inaugural address, and the Assistant Dean of Academic Affairs Dr. Majdi Mohammed Said Bait Ali Sulaiman who awarded the winners and outstanding students. Dr. Fatima Al Shanfari, IT-HOD, was the overall chairman of the festival.

Overall, the collaborative ideas, efforts, overwhelming support, and valuable contributions of the management, the different departments, the IT Club headed by Shouq Amur Suhail Al-Mashani and the other student participants made the festival a momentous one. Do Chocolate and flowers made a great contribution to its success as the major sponsor of this year's festival.

ACTIVITIES WITH THE ALUMNI AND CAREER GUIDANCE ACTIVITIES

UTAS-Salalah acknowledges the necessary involvement and contributions of its alumni in the enhancement of its curriculum and ensuring that its graduates are equipped with the appropriate skills required in the market. On this note, the different departments have organized workshops and events that involve its alumni and also held activities that aims to prepare the graduating students for their future careers.

Training Workshop conducted by Electrical Engineering Alumni

In an effort to prepare the electrical engineering students for the technician licensure exams, a training workshop on Oman Electrical Standard-4 (OES.4) was conducted on 22nd of March 2022 by one of the Electrical Engineering alumnus Er. Hilal Al Kathiri from Volt-National, Muscat. There were 24 students who registered from the Electrical Engineering Section and it was also attended by other alumni.

A Meeting with the Business Studies Department Alumni

The Business Club in collaboration with the Student Development Committee of the Business Studies Department organized an online event on March 1, 2022, called «Meeting the Alumni». The invited alumni shared information on the industries in which they presently work and how they got started on their careers. The BSD alumni guests included Ms. Muna Suhail Ajham Bait Said, Account Relationship Manager at Bank Muscat, Mr. Ahmed Abdullah Al Mamari, Human Resource Manager, Global Mining Company,LLC-Salalah and Ms. Fatima Mohammed Al-Shahri, an Accounting Lecturer at UTAS Salalah›s Business Studies Department.

The event aimed to provide the graduating students the learnings from the experiences of the alumni, explore potential career paths and relevant skills that impact the workplace. They also receive tips and advice on transitioning to the workplace, improve their ability to identify and communicate employability skills, comprehend the steps necessary to achieve their career goals, and expand their professional network.

Workshop on Equipment Calibration for the Alumni

On the 29th of March and 5th of April 2022, a workshop on Equipment Calibration for the Alumni was conducted by the Chemical Engineering section. The said workshop is intended primarily for the alumni to gain hands-on experience and understanding of the calibration of flame photometry, refractometers, and pH meter equipment. There were more than 70 alumni who registered for the event. It consisted of two sessions. The first session covers pH calibration from various standard solutions as well as refractometer calibration. The second session covers flame photometry calibration using different standard solutions of metals. This workshop provided the alumni with highly valuable

insights into improving their analytical skills.

Business Studies Department - Career Guidance Day

On March 29, 2022, the Business Studies Department hosted a ‹Career Guidance Day which encompasses a series of career-boosting programs for students. The Industrial and Community Engagement Committee, the OJT Committee, the Student Development Committee, the Business Club, and the Human Resource Management section of the department all assisted in organizing these activities which aim to help graduating students prepare for the job market.

Ms. Eiman Said Al Malki, Assistant Specialist-HR from Omantel, gave the first session and delivered a lecture on «How to Promote Yourself in the Workplace During OJT.» Ms. Marion Wilton, Lecturer from the English Language Center-UTAS Salalah, facilitated the second session on Job Search Methods. Mr. Ricardo Biason, a Marketing Lecturer in the Business Studies Department, led the third session, «Write Your Own Destiny,» which included a CV workshop with thorough explanations and step-by-step procedures for creating a competitive CV.

Oman Math Day and Virtual Math Talk 2021

The Mathematics Section of the Information Technology Department hosted two (2) major international and national events for the Academic Year 2021- 22.

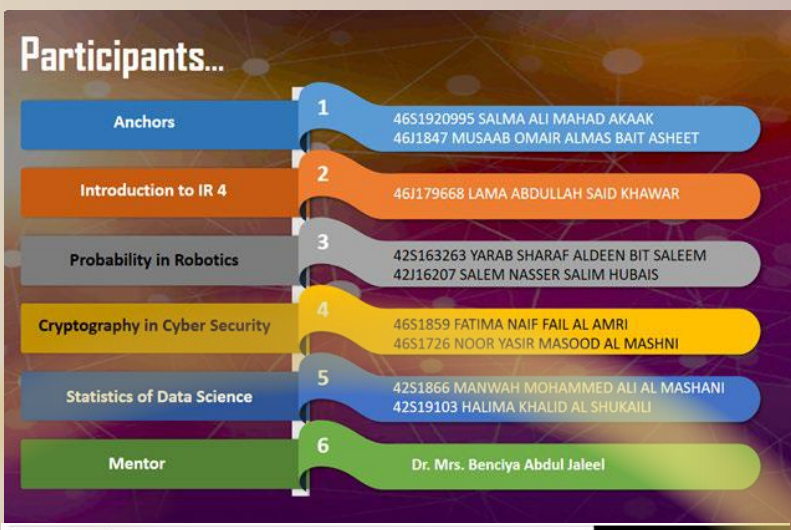
Oman Math Day

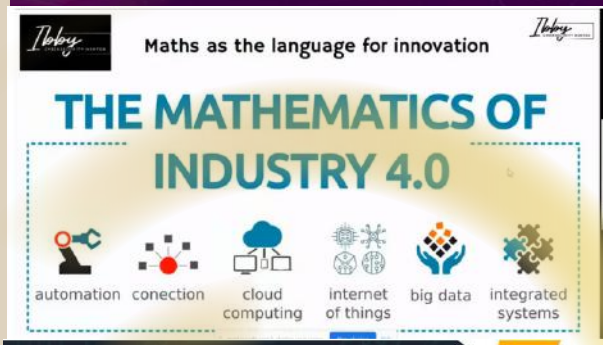
Oman Math Day is an opportunity for a section of learners to understand the values, practices, and new trends in Mathematics, emphasizing the need for Math knowledge as a basis of all the sciences, and Math is rightfully called The Queen of Sciences. As part of its celebration, the section conducted an International Webinar on the "Role of Mathematics in Industrial Revolution 4.0." Oman Math Day Celebration witnessed participation from Math enthusiasts from various countries. The Keynote Speaker **Dr. Mohammed Ibrahim**, Senior Cyber Security Consultant, UAE, spoke on "Mathematics in IR 4.0" demystifying Mathematics and highlighting the role of mathematics as a Language for Innovation. The Guest Speaker, **Mr. Joshua Daniel Egan**, Assistant Professor, Hindustan College of Arts and Science, India, delivered a Lecture on "Data Analytics in R Programming", focusing on the importance of statistics in Data Science and the use of R Programming in various fields. Students under the mentorship of Dr. Benciya Abdul Jaleel participated in the Webinar on topics related to Industrial Revolution 4.0.

Virtual Math Talk Contest

The Virtual Math Talk Contest 2022 (**VRMTC 2022**) through Case Study Analysis held on the 22nd of March, 2022, was a great opportunity for students to gain substantial experience, display their skills, and uncover personal aptitude through which students were encouraged to adopt innovative techniques and develop their ideas. **Dr.Bushra Hibras Al Sulaimi** – Head of Math Specialization Committee & HOS Math-UTAS-HCT, inaugurated the online event.

The event witnessed 21 presentations from the different branches of UTAS: Salalah, Shinas, Muscat, Ibra, CAS-Salalah and CAS-Nizwa under the theme **"Application of Mathematics in Industry & Society - (AOMIS)"** in four categories (Foundation Level, Diploma, Advanced Diploma, and Bachelor).





LIST OF WINNERS

FOUNDATION LEVEL			
COLLEGE	STUDENT	TOPIC	Prize
UTAS-SHINAS	Rayyan Fahim Said Al Mamari Alaa Ahmed Abdullah Alsulaitini	Pedestrian Crossing and Math	1st Place
UTAS-SALALAH	Fatima Mohammed Rashid Al Saidi	Application of Exponential Function	2nd Place
UTAS-CAS SALALAH	Raghad Ahmed Said Al Ojaili Sabba Musallam Ali Al Masahli	Hanoi Tower - Applications of Recurrence Relation	3rd Place

DIPLOMA LEVEL			
COLLEGE	STUDENT	TOPIC	Prize
UTAS-SALALAH	Malak Ibrahim Ahmed Al Jabri Rayyan Muktar Shahir Bait Saleem	Financial Literacy and its Real Life Applications	1st Place
UTAS-IBRA	Sultan Saif Said Salim Al-Busaidi Adham Sulaiman Saleem Shahab Al Hasani Amna Nasser Masoud Ban	Understanding the Concept of Average	2nd Place
UTAS-SALALAH	Maryam Abdul Salam Ahmed Bamkhalaf Nooran Ali Ahmed Bait Ali-Sulaiman	Approximation of Pi through Mathematical Software	3rd Place

ADVANCED DIPLOMA and BACHELOR LEVEL			
COLLEGE	**STUDENT**	**TOPIC**	**Prize**
UTAS -MUSCAT	Maryam Abdul Baseer Abdul Quader Hamed Khalifa Obaid Masoud Al hinai	Mathematical Modeling in the field of Infectious Disease Epidemiology	1st Place
UTAS-CAS-NIZWA	Yaseen Abdulaziz Hayat Jamal Jaafar	Recent Trends and Innovative Methods on Encryption Using P-NP Conjecture	2nd Place
UTAS-SALALAH	Manwah Mohammed Almashani	Applications of Differential Equations: Exponential Growth in Today's World	3rd Place

Recognizing the importance of raising awareness about safe evacuation in cases of emergency situations, the College Health and Safety Committee in coordination with the Civil Defense and Ambulance conducted several activities related to safety drills.

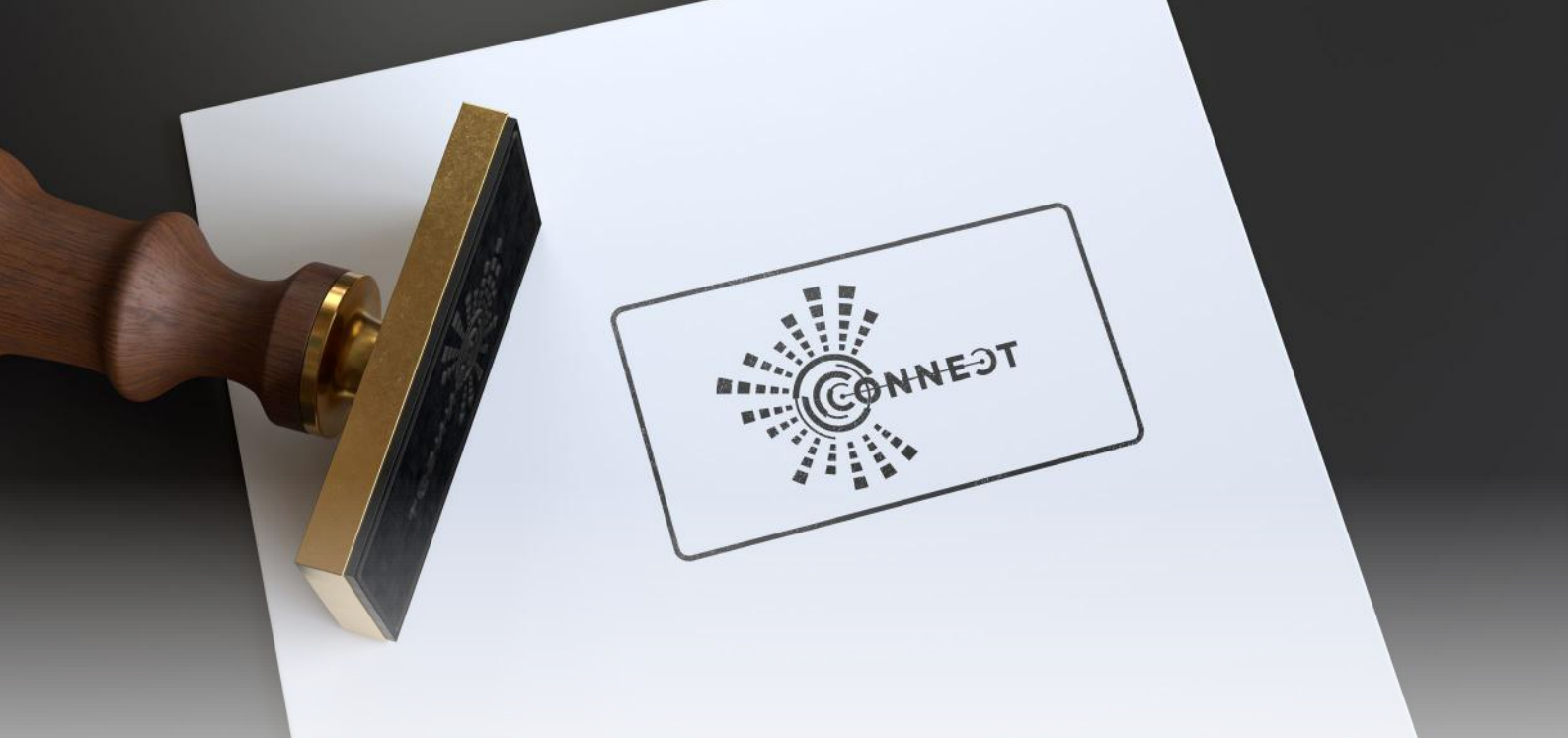
A Fire Safety Drill was conducted at the English Language Center to demonstrate how to exit buildings in a timely and organized manner including the designated areas for evacuation assembly points.

Staff and students likewise visited the Civil Defense and Ambulance to learn about fire prevention and preparation in the events of fire incidents.

Health and Safety Activities

SPORTS Activities for Students

UTAS-Salalah recognizes the importance of providing resources to further enhance the physical and mental abilities of students. Thus, indoor and outdoor sports activities are promoted and encouraged for the students to not only sharpen their skills and invigorate their minds but to encourage their enthusiasm for fitness and healthy lifestyle.



OUR INDUSTRY AND COMMUNITY CONNECTION

Industry and Academia Relationship

The University of Technology and Applied Sciences-Salalah has consistently ensured to maintain a robust relationship between academia and the industry. The university firmly believes that effective academia-industry partnerships are instrumental in strengthening the curriculum which is congruent to the current demands of the industry and ensuring that the skills set of its graduates are aligned with the market needs. Moreover, a strong industry-academia relationship is a powerful tool in enabling an environment of enhanced competitiveness, while it also stimulates a collaborative drive among its stakeholders.

In continuous adherence to one of the University's goals to develop and strengthen institutional relationships, the College Dean, Dr. Mohammed Rashid Al-Mamari held collaborative meetings with several industry key players.

The Dean welcomed the Technical Support Team of the Oman Chamber of Commerce and Industry (OCCI) in a meeting that highlighted on the significance of integrating entrepreneurial education in building a strong academic foundation for students.

Furthermore, a delegation from the Oman National Engineering and Investment Co. (ONEIC) headed by the company's Senior Manager Branches Operations, Mr. Rashid Mohammed Al-Azri also met the college dean. The meeting focused on the subject of mutual collaboration between UTAS-Salalah and ONEIC specifically on how the latter can accept On-the-Job Training (OJT) students in the company. Other topics discussed include mutually beneficial ways on how both parties can work in partnership to benefit both the staff and students.

A collaborative meeting was also held between the college dean and the National Bank of Oman (NBO). The management delegation of NBO was headed by Mr Mohammed Al-Balushi, the bank's General Manager in the Dhofar Region. The main agenda of the meeting was on the subject of mutual collaboration between UTAS-Salalah and NBO including how the latter can be of support to the University's student activities and projects.

Collaborative Meetings Held with Industry Key Players

UTAS-Salalah Welcomed the EIDAAD Team Delegation and the Ministry of Commerce, Industry and Investment Promotion

A delegation from the Eidaad Team headed by Mr. Hamed Al- Hadhrami, External Learning & Development Manager, met the College Dean Dr.Mohammed Rashid Al Mamari together with the students from the different specializations of the University of Technology and Applied Sciences-Salalah on February 9th, 2022. The team introduced the purpose, benefits and the registration process of the «Eidaad» program. The meeting was part of the on-going efforts to enhance the industrial and academic cooperation and bridging the gap between industrial and academic institutions with the support of the Ministry of Higher Education, Research and Innovation (MOHERI) and Petroleum Development Oman (PDO).

Meanwhile, Sheikh Jamal Bin Abdullah Al-Hinai, the Director General of Ministry of Commerce, Industry and Investment Promotion in Dhofar Governorate and his accompanying delegation also visited the university. The DG was accompanied by a delegation consisting of representatives from Oman Development Bank and SME Development Authority. The delegation met the students of UTAS-Salalah to acquaint them with the various services that the Ministry provides as well as the new investment laws. Presentations on the topics of entering new business ventures and on how the Oman Development Bank can provide assistance to entrepreneurs were delivered by the ODP representative. Moreover, the SME Development Authority representative discussed the different industries in which entrepreneurs can venture on and how they can support future entrepreneurs.


CONNECT

Industrial Visits

In its on-going efforts to provide the students actual insights on the operations of companies, the university's industrial link committee has organized a number of industrial visits in the recent academic year. Industrial visits allow the students to interact and learn from the experts in the industry while providing them an actual platform to appreciate the theoretical concepts learned in the classroom and how these theories are applied in actual operations. Moreover, industry visits reinforce the university's relationship with these companies as part of its mutual partnership commitments.

For the academic year of 2021- 2022, the staff and students of the academic departments have conducted a total of **thirty four (34) industrial visits** to the following industries:

A'Safwah Dairy

Al Morooj Dairy

Bindeban Project Services Company, Salalah

Carmeuse Majan Company

Civil Aviation Authority (CAA)

Civil Defense and Ambulance Authority

Dhofar Beverages and Foodstuff Company

Dhofar Generating Company

Environment Authority

Millennium Resorts

Octal Petrochemicals, Salalah

OETC Grid Station

Oman Milk Products (Dairy) Company SFZCO LLC

Oman National Factory for Printing and Packaging

OQ Methanol

Port of Salalah

Salalah Free Zone

Salalah Mills Company

Sembcorp Salalah Power & Water Company SAOG

Environment Authority

Oman Milk products Dairy SFZCO LLC

Civil Aviation Authority

Octal Petrochemicals

Dhofar Generating Company

Raysut Industrial Area

OETC GRID Station

Port of Salalah

Salalah Free Zone

Raysut Cement Company

ACWA POWER

Expert Lecturers from the Industry

Lubaniah Company Salalah

Oman Electricity Transmission Company

HR from Omantel

Volt Training Institute

Port of Salalah

In order to enhance the students' knowledge on their areas of specialization, a number of lectures with invited expert speakers from the industry were organized by the academic departments. These lectures complemented the course outcomes and topics that require a contemporary perspective from an invited external guest speaker. Furthermore, such lectures provide students better opportunities to learn real life experiences and practical applications as the invited lecturers are actual practitioners from the industry.

For the academic year of 2021- 2022, a total of **twenty-three (23) experts** from the following industries and institutions were invited to conduct workshops and trainings for the staff and students of the academic departments:

ACWA Power

Alnylam Pharmaceuticals

Bunduq Oil Producing Company

California Air Resources Board

Lubaniah Company

MATS University

Oman Electricity Transmission Company

Omantel

OQ LPG

OQ Methanol

Port of Salalah

Raysut Cement Company

Salalah Mills Company

Sembcorp Salalah Power & Water Company SAOG

University of Hawaii

Volt National Training Institute, Muscat

Engineering Students Developed Collaborative Projects with the Industry

Students from the Civil and Architecture, Chemical, Electrical, and Mechanical sections developed projects that involved recent applications such as Road Traffic Automations and projects useful for the public. Some of the focus topics are:

- Recording of video for traffic volume count at Haffa House overlooking Burj Al Nadah Roundabout
- Traffic Volume count at Sultan Taimur Street
- Traffic Volume count at Nesto Saada
- Experiment on the Effect of Rejected Quicklime on the Engineering and Index Properties of Hasik and Zeek Soils

Selected Diploma, Advanced Diploma, and Bachelor level students from the Mechanical Engineering section designed certain 3D models as part of improving the teaching and learning methods.

Engineering Department successfully worked on collaborative projects with the top industries with the guidance of the internal academic supervisor in collaboration with the industrial Supervisors mentioned below:

SN	Industry	Industrial Supervisors
1.	Raysut Cements	Er. Kaliraj
2.	OQ Methanol	Er. Ghada Al Shanfari
3.	Octal Chemical	Er. Ali Hubais - Process Engineer
4.	Salalah Mills SAOG	Er. Ramiz Fadhil - Process Engineer
5.	OQ, LPG	Mr. Ahmed Al Shanfari
6.	Dhofar Desalination Company SAOC	Er. Loic Bonnet-Commissioning Manager
7.	Sembcorp Salalah Power & Water Company	Er. Hasina Al Amri-Senior Chemist
8.	ACWA Power	Er. Mohammed Tahir Al Ibrahim
9.	Dhofar Beverages and Foodstuffs Co.	Er. Jahangir

Engineering Department Secured Memberships in Professional Organizations

Engineering Department successfully secured memberships in various prestigious professional organizations as part of their staff and student development programs.

Below are the details of their membership in the following organizations:

1.Dr. Shabnam Siddiqui was selected as a full member of OWSD- A Unit of UNESCO- Organization for Women in Science for the Developing World, Italy.

2.Chemical Engineering - American Institute of Chemical engineers (AICHE), American Water Works Association (AWWA) Asian polymer Association (APA), International Association of Engineers (IAENG), Indian Chemical Society (ICS), Indian Institute of Chemical Engineers (IICHE), Society of Pesticide Science India (SPSI), The Indian Science Congress Association (TISCA).

3.Mechanical Engineering - The Indian Society for Technical Education (ISTE), Indian Institute of Industrial Engineering, The Institution of Engineers, Indian Society of Mechanical Engineers (ISME), International Association for Educators and Researchers (IAE), International Association of Academic plus Corporate Society (IAAC), Institute for Engineering Research and Publication(IFERP), Society of Failure Analysis, Indian Society of Systems for Science and Engineering (ISSE), Institution of Mechanical Engineers.

4.Engineering and IT - Institute of Electrical and Electronics Engineers (IEEE).

5.Civil Engineering- International Association of Engineering.

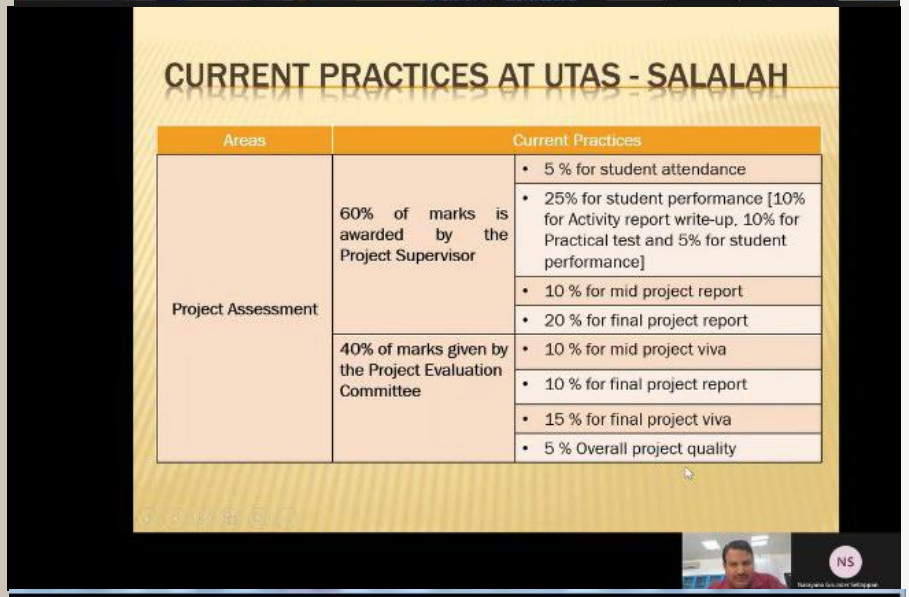
AIChE
The Global Home of Chemical Engineers

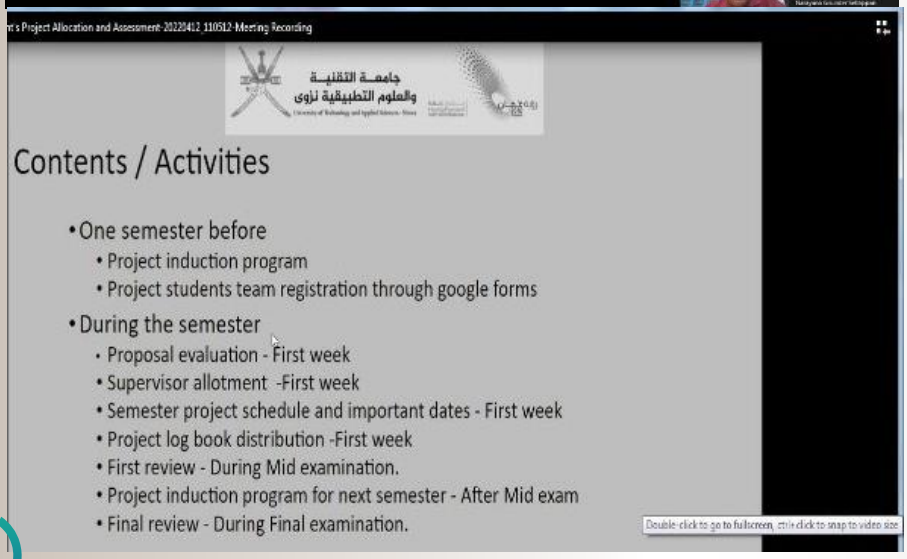
Sharing of Best Practices and Benchmarking Activities with Other Higher Education Institutions

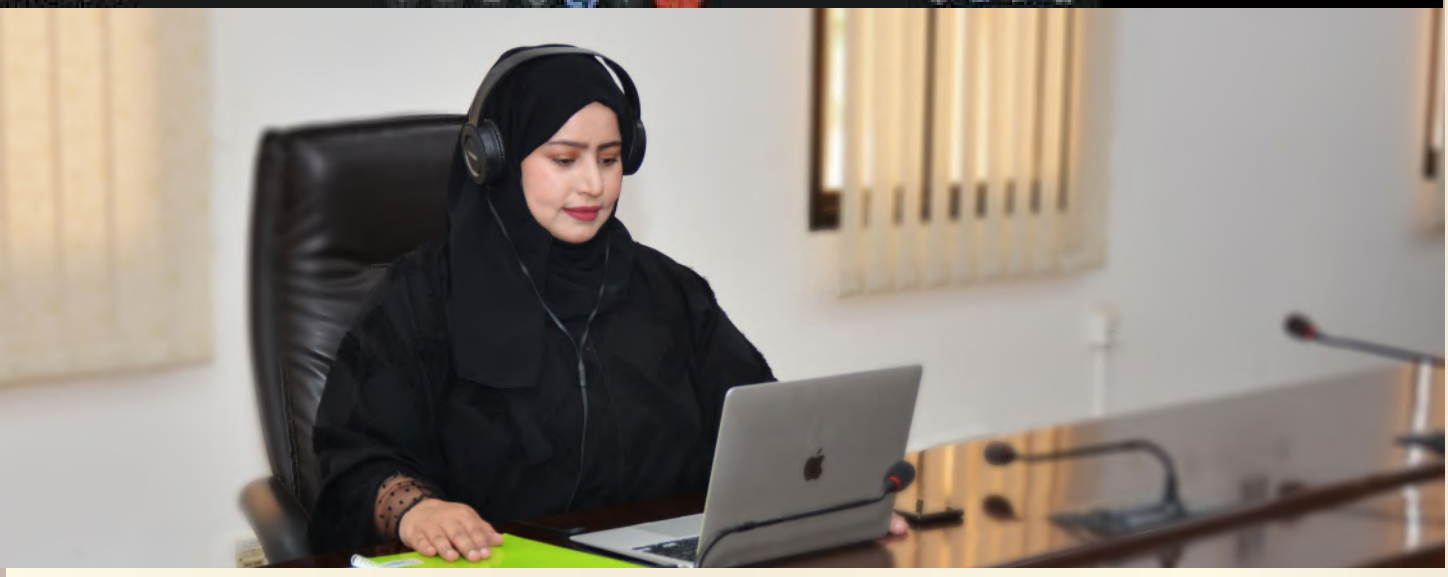
As part of Engineering Department's development activities and continuous improvement practices, the various sections of the department are in the process of commencing its benchmarking activities with other HEIs.

Academic collaborations are in the pipeline between the Chemical Engineering Section and BITS Pilani – Dubai while the Electrical Section's benchmarking activities are in the offing with the FEU Institute of Technology, and the University of the Philippines.

On the other hand, the Mechanical Section has done an online meeting with UTAS-Nizwa (Engineering Department -Mechanical Engineering Section) on *Sharing Best Practices on Student›s Project Allocation and Assessment* on the 12th of April 2022.







At the University of Technology and Applied Sciences-Salalah, we strongly believe that as an educational institution, we are a resource and an asset to the community and to the country. We take great pride in our globally relevant academic programs which produce graduates who become active citizens of Oman and positively impact our communities.

Beyond our core objectives, mission and vision, the University has a commitment to be a responsible and ethical participant in the community and we are keen to contribute to its promotion and development. UTAS-Salalah seeks to strengthen the University's relationship and engagement with the society and contribute to its advancement through the provision of training programs and courses in the fields of administration, management, information technology, engineering, education and social. These programs strive to contribute to the development of the members of the community.

For the Academic Year of 2021 -2022, the University has offered a total of sixty-three (63) training programs and general courses to the public and has received over one thousand two hundred (1200) registrations from the public and stakeholders.

We will continue to be an engaging institution which is involved and believed in strengthening the civic roles and social responsibilities of higher education institutions.

Service and Community Engagement

CONNECT

Blood Donation Drive

As part of its service to the community and to the country, UTAS-Salalah has organized blood donation drives in cooperation with the Ministry of Health and various health institutions in Dhofar. The initiative was organized and managed by the Student Affairs headed by its Assistant Dean, Mr Ahmed Al-Rawas.

The blood donation drive initiative is part of the responsibility of any institution to the community to save someone's life and to instill the value of charity and volunteering to the staff and students.


BADR AL SAMAA
GROUP OF HOSPITALS AND POLYCLINICS
TRUSTED HEALTHCARE
PARTNER WITH
MULTI-NATIONAL PRESENCE

RESEARCHERS' CORNER

Prelude

Research is one of the most important pillars of an academic institution. It is one of the cardinal bridges that CONNECTs the past and the present with the future. The University of Technology and Applied Sciences (UTAS)-Salalah is committed to promoting and fostering a research culture among its faculty and students. The research undertaken at the university addresses the national priorities of Oman as outlined by Oman Vision 2040.

UTAS-Salalah is moving forward and climbing higher with research and innovation. UTAS-Salalah researchers, across departments, scrubbed up well to publish **more than 60** manuscripts in international journals of high repute, while those accepted in international/ national conferences touched 16, in the year 2021. In addition to the publications, staff members have authored books, delivered their expertise as reviewers and editors in impactful international journals. In the following pages, readers will find commendable research highlights from a few of our research geeks.

The university takes pride in announcing the quantum leap in the research proposal submissions to MOHERI (formerly The Research Council -TRC) of Oman, in the current year. In 2022, a total of **77 research proposals** were submitted by the staff and students of UTAS-Salalah. Category wise, out of 77 proposal submissions, 35 were research grants (RGs), 13 were research graduate grants (GRGs) and 29 were undergraduate research grants (URGs).

Besides the number of submissions, the wide spectrum of research interests shown, exudes the leaning stance of UTAS-Salalah, which is now Research and Innovation.

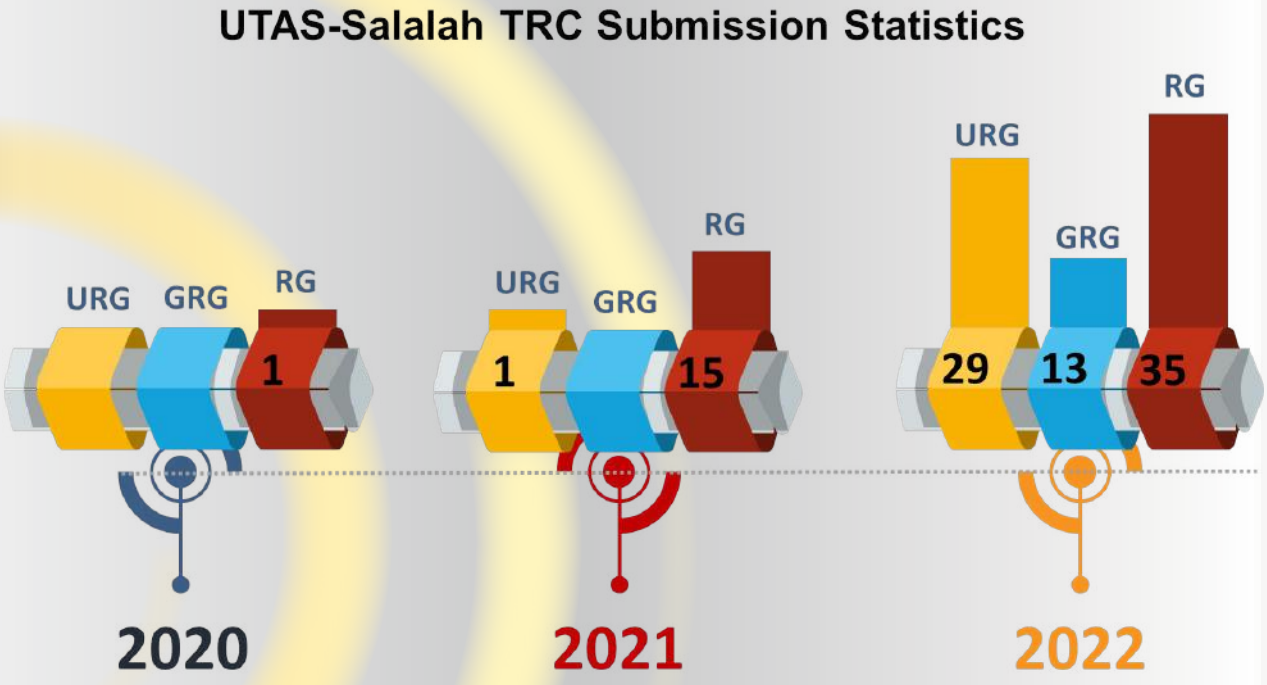


***Figure 1**: Year-wise TRC submission statistics.*

Activities Organized by Research & Consultancy Committee- (College and Departmental Level)

Dr. Mohammed Rashid Al Mamari - Dean, and Dr. Majdi Mohammed Bait Ali Sulaiman- ADAA, UTAS-Salalah have always put forth staff members as one of the most important resources of the organization and hence raising the scholarly standards of the staff, in-turn elevates the metrics of the organization. With this, Research and Consultancy (R&C) Committee under aegis of Dr. Mohammed Kashoob, Chairperson (College Level), organized several college level and departmental level programs.In the academic year 2021 - 22, a total of **23 events** were organized by the R&C Committee. Topics of seminars/webinars covered a broad spectrum. From specific research-area to more generalized but powerful topics like research metrics and ways of publishing the manuscripts in leading journals were presented, among others. One silver lining in Covid-19 pandemic era was the shift of dependency on in-person seminars and workshops. New contacts could be forged easier than ever. This had tremendous benefits in expansion and dissemination of knowledge. R&C at UTAS-SLL was quick to reap the benefits of the same. R&C committee worked meticulously to bring to the fore **7 International experts** from prestigious universities, to share their expertise with the staff members, both at college and departmental level. In this context, IT department-level webinar given by Dr. Mohammad Sufian Badar from University of California, USA needs special mention. His talk on- "Covid-19 Analysis and Diagnosis through Machine Learning", presented the ways to develop the research skills in using the Machine Learning Algorithms for Covid-19 analyzes. Other preeminent speakers included Prof. Dr. Asadi Srinivasulu from Blue Crest University, Liberia, and Dr. Subramanian Babu (Professor and Dean)

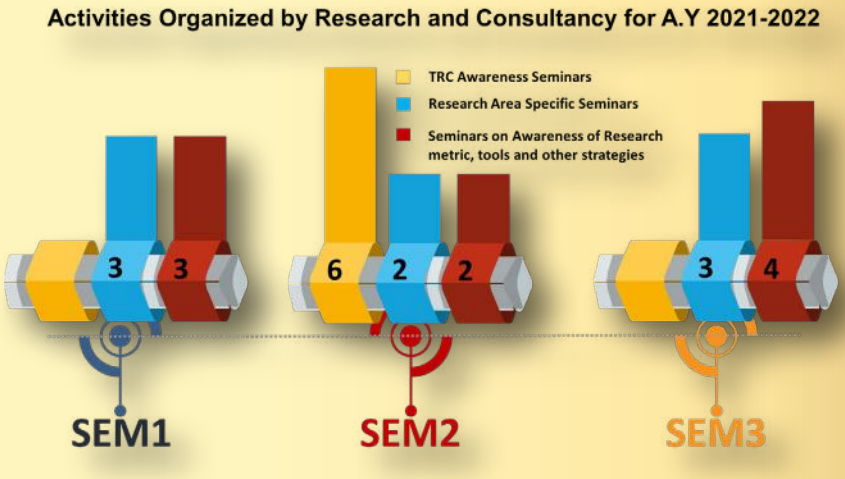


***Figure 1**: Semester wise range of activities organized by R&C Committee in the year 2022-2021*

Vellore Institute of Technology, India. "How to Improve Research Visibility and Impact" by Dr. Nader Ale Ebrahim from Al Zahra University, Iran, deliberated on the strategies leading to impactful research publications and was very well received by the participants.

Internal speakers (researchers from UTAS-SLL), also came forward to share their knowledge with their peers. Engr. Sampath Kumar motivated his Electrical Engineering colleagues in the research field of newer optimization techniques and recent softwares used in power systems, through his presentation on "Research Studies on Advancements in Switchgear for smart grid". While Dr. Muna Muqaibal from ELC presented the "Effectiveness of Spaced Practice: Using Technology in Learning Vocabulary"; Dr. Blessey Mathew from Business Studies Department reviewed on "Self-Energy Management". Besides these research topic-oriented activities,

Dr. Selvaraju Sivamani and Dr. Rakesh Namdeti (both from Department of Engineering), enlightened the participants on various research metrics like online research tools, impact factor, SJR, Scopus, Eigen factor, Google scholar and H- index etc.

Research grade seminars and workshops provide an opportunity to the participants to immerse and enrich themselves with subject-specific topics and strategies

to enhance their research output. Such programs offer multi-dimensional benefits, which recharge and renew the sense of purpose in the attendees. A direct indicator of these seminars and workshops could be seen in the astronomical jump in the number of publications in the year 2021.


Page Number

Procedia Computer Science

201 (2022) 470–477

https://doi.org/10.1016/j.procs.2022.03.061

The 5th International Conference on Emerging Data and Industry 4.0 (EDI40)

March 22-25, 2022, Porto, Portugal

Algorithmic Approaches to Classify Autism Spectrum Disorders: A Research Perspective

Shomona Gracia Jacob [a], **Majdi Mohammed Bait Ali Sulaiman**[b] and Bensujin Bennet[c]

[a]*Faculty,* [c]*Head of Section,*[a,c]*University of Technology and Applied Sciences, Nizwa, Oman, Postal Code:611.*

[b]*Assistant Academic Dean, University of Technology and Applied Sciences, Salalah, Oman, Postal Code:211.*

Abstract:

Autism Spectrum Disorder (ASD) is a neurodevelopmental disability that exhibits sluggish progress in vocal development, restricted interest in normal activity and repetitive disoriented behavior. This syndrome, has gained a lot of attention due to its prevalence among children across all countries and from different economic backgrounds. However, ASD detection and treatment yet remains in its infancy due to the lack of awareness among parents, limited screening of proper developmental milestones and a dearth of diagnostic tools to classify this syndrome with convincing accuracy. Recent studies report that scalable biomarker for early detection have made little progress in research due to the erraticism of this disorder. Moreover, the study on developing tools or applications for parents, teachers, and healthcare workers to identify children who exhibit any form of autism is still a work in progress. The research work undertaken in this paper presents an analysis of supervised machine learning algorithms on mining interesting details that link the diverse nature of ASD and the possibility of computationally detecting markers for the syndrome. The preliminary findings on the performance of traditional machine learning algorithms in ASD classification is reported with the possibility of integrating deep learning architectures for ASD detection and therapy.

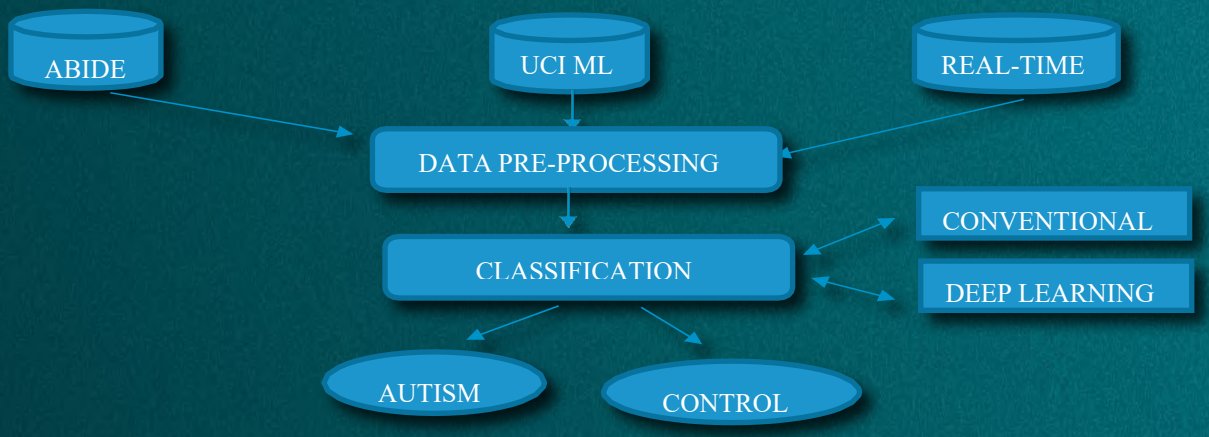


Figure 1: *General Framework of Existing methodologies in Autism Prediction*

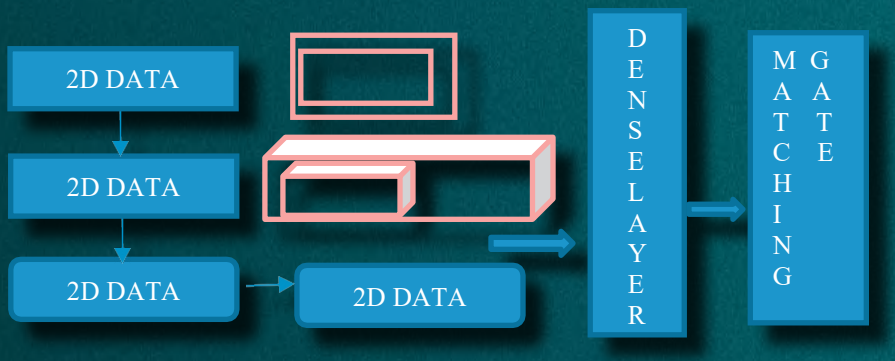


Figure 2: *CGRNN Model for Autism Prediction.*

Network Modelling Analysis in Health Informatics and Bioinformatics

11 (22) (2022)

https://doi.org/10.1007/s13721-022-00364-4

A Graphical Approach for Outlier Detection in Gene-Protein Mapping of Cognitive Ailments: An insight into Neurodegenerative Disorders

Shomona Gracia Jacob[a], **Majdi Mohammed Bait Ali Sulaiman**[b], Bensujin Benn-et[c], Vijayaraghavan R.[d], Subin Sahayam M.[e], Thiviyakalyani N.[f], Shriram S.[g], and Thushara Hameed[h]

[a]*Faculty,* [c]*Head of Section,*[a,c]*University of Technology and Applied Sciences, Nizwa, Oman, Postal Code:611.*

[b]*Assistant Academic Dean, University of Technology and Applied Sciences, Salalah, Oman, Postal Code:211.*

[d]*Verizon, Chennai, India.*

[e]*Indian Institute of Technology, Design and Manufacturing, Kancheepuram, Tamilnadu, India.*

[f]*Department of Computer Science, Arizona State University, Arizona, USA.*

[g]*Visteon Corporation, Chennai, India.*

[h]*Department of Engineering, University of Technology and Applied Sciences, Nizwa, Oman.*

Abstract:

Detecting outliers in gene-protein mapping that reveal the presence of neuro-degenerative disorders or distinguishes between two different neuro-degenerations is an unexplored research area. This research work proposes a new methodology based on graphs for detecting outliers that relate the gene-protein mapping anchored on their physicochemical properties. The results of this study have revealed the exact protein physicochemical properties and the corresponding gene that is mapped to that protein. This research work makes the following contributions: (i) Proposes a simple graphical approach to visualize the gene-protein mapping for neuro-degenerative disorders based on their structural and physicochemical properties (ii) Generation of a pre-processed database by feature extraction from multiple web servers (iii) Proposed methodology of extracting outliers from tabulated (supervised/unsupervised) data can be extended to detect outliers from any dataset. The outliers that have been detected by this methodology were further studied using the REVIGO server that reveals the genetic functionality of the genes in maintaining healthy human

activity. The outliers have reported no significant contribution and hence it is believed that this method can be extended to detect noisy outlier data from other biological and clinical datasets.

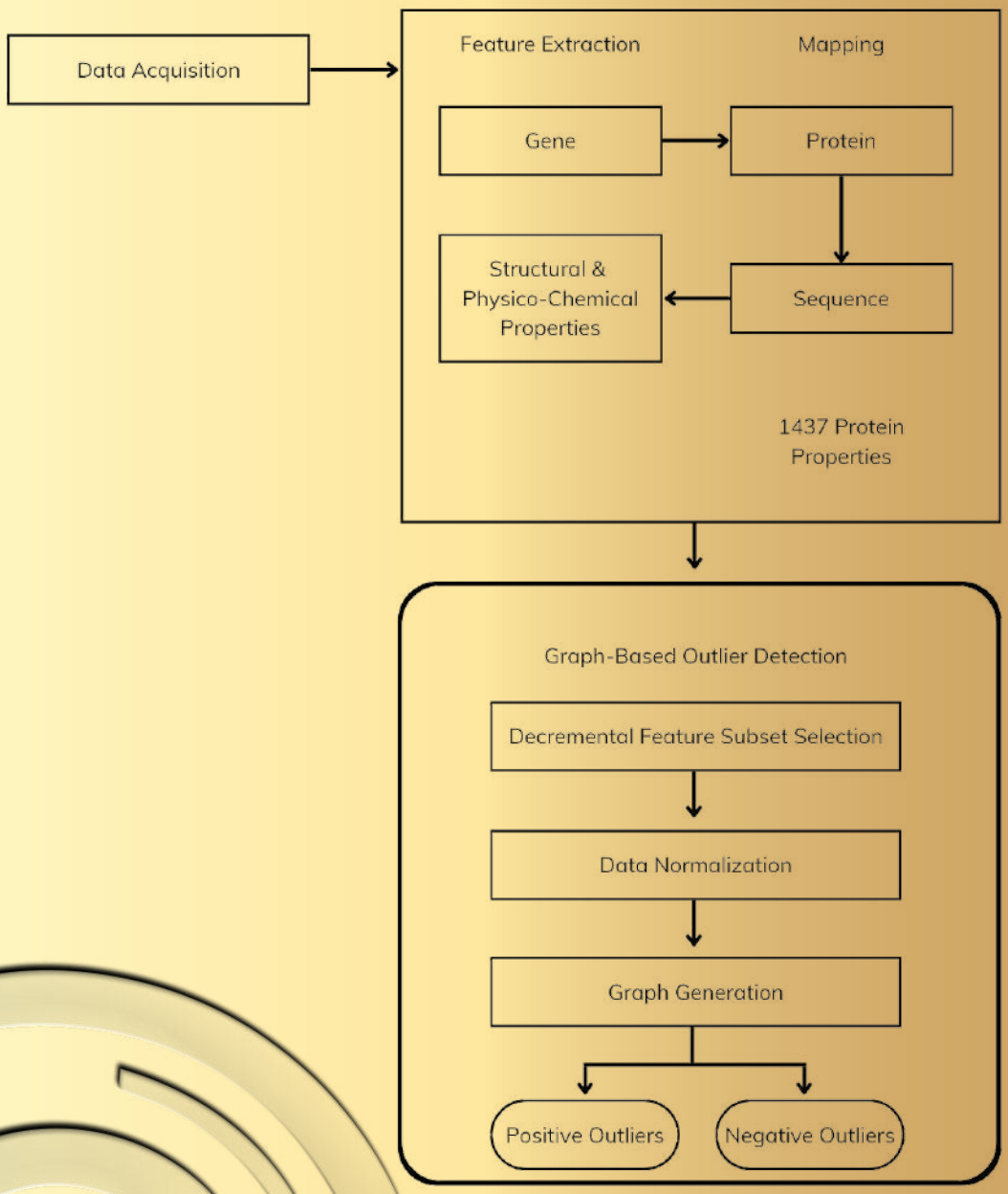


Figure 1: *Proposed Framework for Outlier Detection on Neuro-Degenerative Data*

Biomass Conversion and Biorefinery

(2021)

https://doi.org/10.1007/s1339901727- 021-z

Optimization and Characterization of Pectin Recovered from Persea americana Peel using Statistical and Non-Statistical techniques

Selvaraju Sivamani[a], Prema Binnal[a], Roy Capili [a], Amal Al-Khaldi[a], Fatema Al-Hamar[a], J Prakash Maran[b], N. Sivarajasekar[c], G. Rajeshkumar[d], Naif Adullah Al-Dhabi[e], Ponmurugan Karuppiah[e]

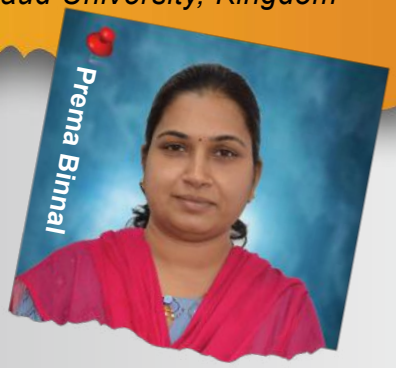
[a]*University of Technology and Applied Sciences (Salalah College of Technology), Salalah, Sultanate of Oman.*

[b]*Department of Food Science and Nutrition, Periyar University Salem, India.*

[c]*Laboratory for Bioremediation Research Unit Operations Laboratory, Department of Biotechnology, Kumaraguru College of Technology, Coimbatore, India.*

[d]*Department of Mechanical Engineering, PSG Institute of Technology and Applied Research, Coimbatore, India.*

[e]*Department of Botany and Microbiology, College of Science, King Saud University, Kingdom of Saudi Arabia.*



Abstract:

The intention of the present study is to optimize the recovery of pectin from Persea americana peel (PAP) by examining four independent process variables (pH, solvent to substrate ratio (SSR) (ml/g), agitation time (AGT) (h), and agitation speed (AGS) (rpm)) and to compare the pectin recovery (PR) using statistical (Box-Behnken Response Surface Design (BBRESD)) and non-statistical (artificial neural network (ANN)) with genetic algorithm (GA) methods. Optimal condition as obtained from ANN-GA technique (pH of 1.9, SSR of 16 ml/g, AGT of 2.1 h, AGS of 99 rpm, and PR of 90.59%) has projected PR precisely than BBRESD technique (pH of 2, SSR of 14 ml/g, AGT of 2 h, AGS of 100 rpm, and PR of 85.44%). Extrapolative capacities of two methods were examined by several

statistical restraints. Structural analyses (FT-IR and XRD) of PR showed highly esterified and amorphous nature of pectin as recovered from PAP. Recovered pectin was observed to melt at the temperature of 258.5 °C which was similar to the commercial pectin. SEM revealed a flaky and spherical morphology of the recovered pectin. The results of this work suggested that PAP is one of the excellent sources to recover pectin with a quality as good as that of the commercial pectin and, hence can be safely used as a food ingredient.

Surface and Coatings Technology

409 (2021) 126878

https://doi.org/10.1016/j.surfcoat.2021.126878

Regression-BPNN modeling of surfactant concentration effects in electro-less Ni-B coating and optimization using genetic algorithm

M. Vijayanand[a], **P. Kumaradhas**[a], **S. Sivamani**[a], **Mithun V. Kulkarni**[a], R. Varahamoorthi[b]

[a]*University of Technology and Applied Sciences, Salalah, Sultanate of Oman.*

[b]*Department of Manufacturing Engineering, Annamalai University, Chidambaram, India.*

Abstract:

Critical Micelle Concentration (CMC) is an important factor to avoid the formation of micelles from monomeric surfactant molecules. Trisodium citrate stabilized electroless Ni-B (ENi-B) coating on aluminum alloy (Al7075-T6) is attempted with the addition of amphoteric surfactant, 3-(N, N-Dimethylmyristylammonio) propanesulfonate (3-DMAPS), to enhance the surface finish (R_a) of the coatings. The main aim of the study is to investigate the influence of surfactant concentration on average surface roughness in ENi-B bath and determine the CMC of 3-DMAPS at minimum R_a. Mathematical models relating the concentration of amphoteric surfactant (0–0.162 g/L) as an independent variable and R_a as a dependent variable are developed using univariate regression analysis (linear, quadratic, power, and exponential models) and back propagation neural network (BPNN) algorithm. The coefficient of determination (R^2) is used to evaluate the goodness of fit between the models, and the BPNN model is found to be the best fit ($R^2 > 0.98$). The minimum R_a of 0.171 ± 0.001 μm was achieved at

the CMC of 0.049 g/L (0.135 mM) from the genetic algorithm (GA) using the validated models developed by quadratic regression analysis and BPNN as fitness functions. SEM, XRD and AFM techniques were carried out for the characterization of ENi-B coatings with and without surfactant at CMC.

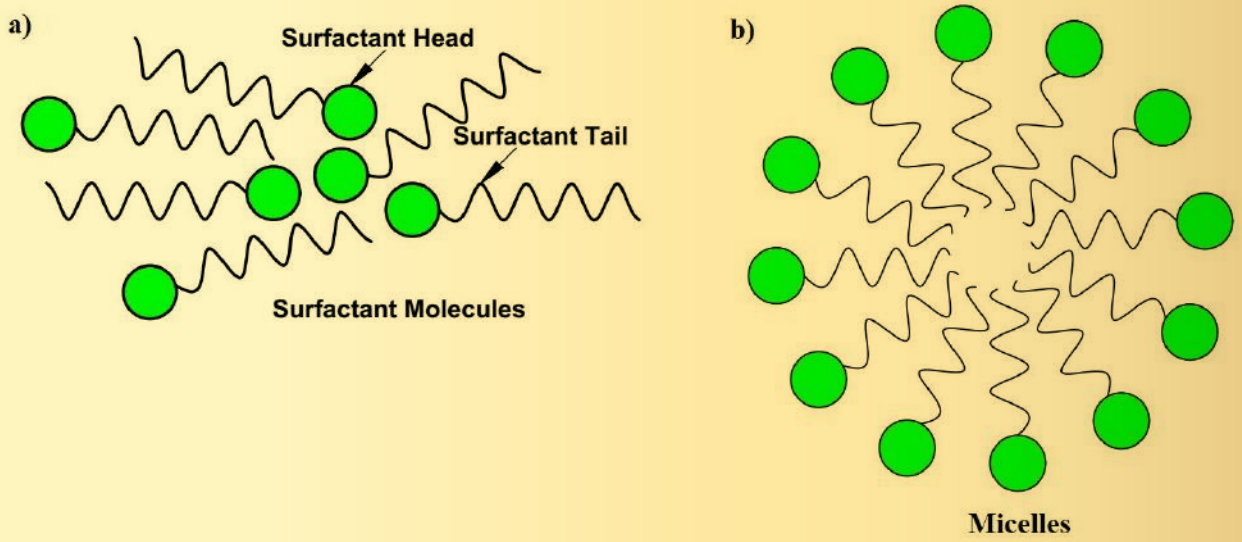


***Figure 1**: Formation surfactant individual monomer to micelles*

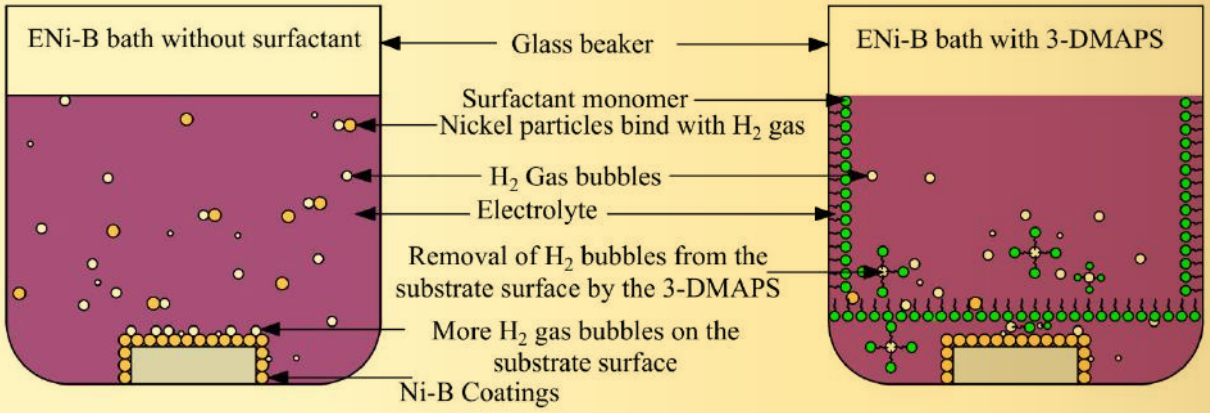


***Figure 2:** Surfactant Mechanism in the ENi-B Coatings*

International Journal of Information Technology

13 (2021) 2059-2068

https://doi.org/10.1007/s41870-021-00743-6

Numerical Analysis and Implementation of Artificial Neural Network Algorithm for Nonlinear Function

Pathamuthu Suresh Kumar, Selvaraju Sivamani

University of Technology and Applied Sciences, Salalah, Sultanate of Oman.

Abstract:

Artificial Neural Network (ANN) architecture contains three main (input, hidden and output) layers. The connections are established between layers through weights and bias. The various simulators are available to implement ANN. But, a knowledge on the numerical investigation and application of ANN for arbitrary values related by a nonlinear function is essential for the better understanding of a nature-inspired algorithm. Hence, the present manuscript provides the mathematical implementation of an algorithm for known values of independent and dependent variables, with and without bias. The predictability of ANN was assessed by a statistical parameter, mean squared error (MSE). The MSE by ANN algorithm was found to be higher (0.008) without bias than with bias for arbitrary values of independent and dependent variables. Hence, it was concluded that the bias reduces error and enhances predictability.

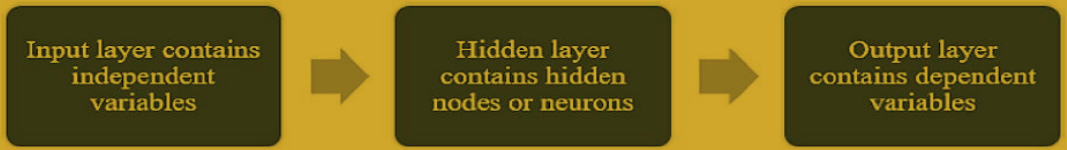


***Figure 1**: General ANN architecture*

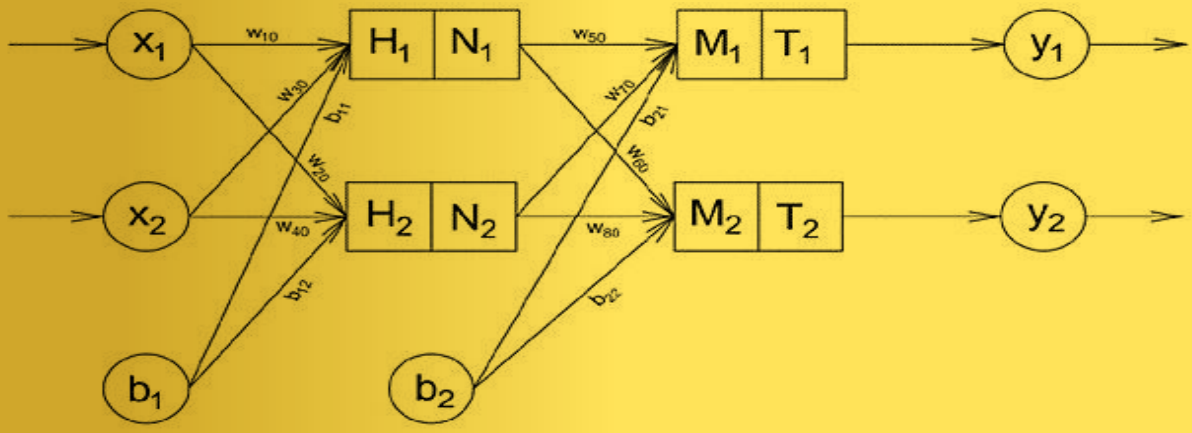


Figure 2**:** *ANN topology connecting independent and dependent variables with bias b (H and N represent the summation and activation functions of hidden layer, and M and T represent the summation and activation functions of output layer, x and y represent independent and dependent variables respectively).*

The International Journal of Surface Engineering and Coatings
Transactions of the IMF
99 (5) (2021) 253-264

https://doi.org/10.1080/00202967.2021.1898172

Modelling and optimisation of hardness in citrate stabilised electroless nickel boron (ENi-B) coatings using back propagation neural network – Box Behnken design and simulated annealing – genetic algorithm

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[b]*Department of Manufacturing Engineering, Annamalai University, Chidambaram, India.*

Abstract:

In this work, a novel citrate stabilized electroless bath was developed and the process parameters (concentrations of nickel, reducing agent, and stabiliser) were optimised to achieve the maximum hardness in the ENi-B deposit on 7075-T6 aluminium alloy, using the back-propagation neural network (BPNN), Box–Behnken design (BBD), simulated annealing (SA) and genetic algorithm (GA). The effect of independent variables on dependent variables was modeled using the BPNN and BBD. The models were assessed for their significance using the coefficient of determination (R^2) and mean squared error (MSE). The MSE and R^2 of 34.18 and 0.9852 were obtained for the BPNN model against 20.48 and 0.9911 for BBD, which proved that the BBD fits well to the experimental data. The optimum nickel ion, reducing agent and stabilizer concentrations of 29.86, 0.77 and 30.92 g L^{-1} were obtained from BBD for the maximum hardness of 592 HV. The local optimum values obtained from BBD were compared with global optimisation techniques, SA and GA, and the values were validated through experiments carried out in triplicate. The maximum hardness from local and global optimisation techniques was identical, with negligible change in the values of optimised process parameters. X-ray diffraction and scanning electron microscopy methods were used to examine the elemental composition and surface morphology, respectively, before and after heat treatment.

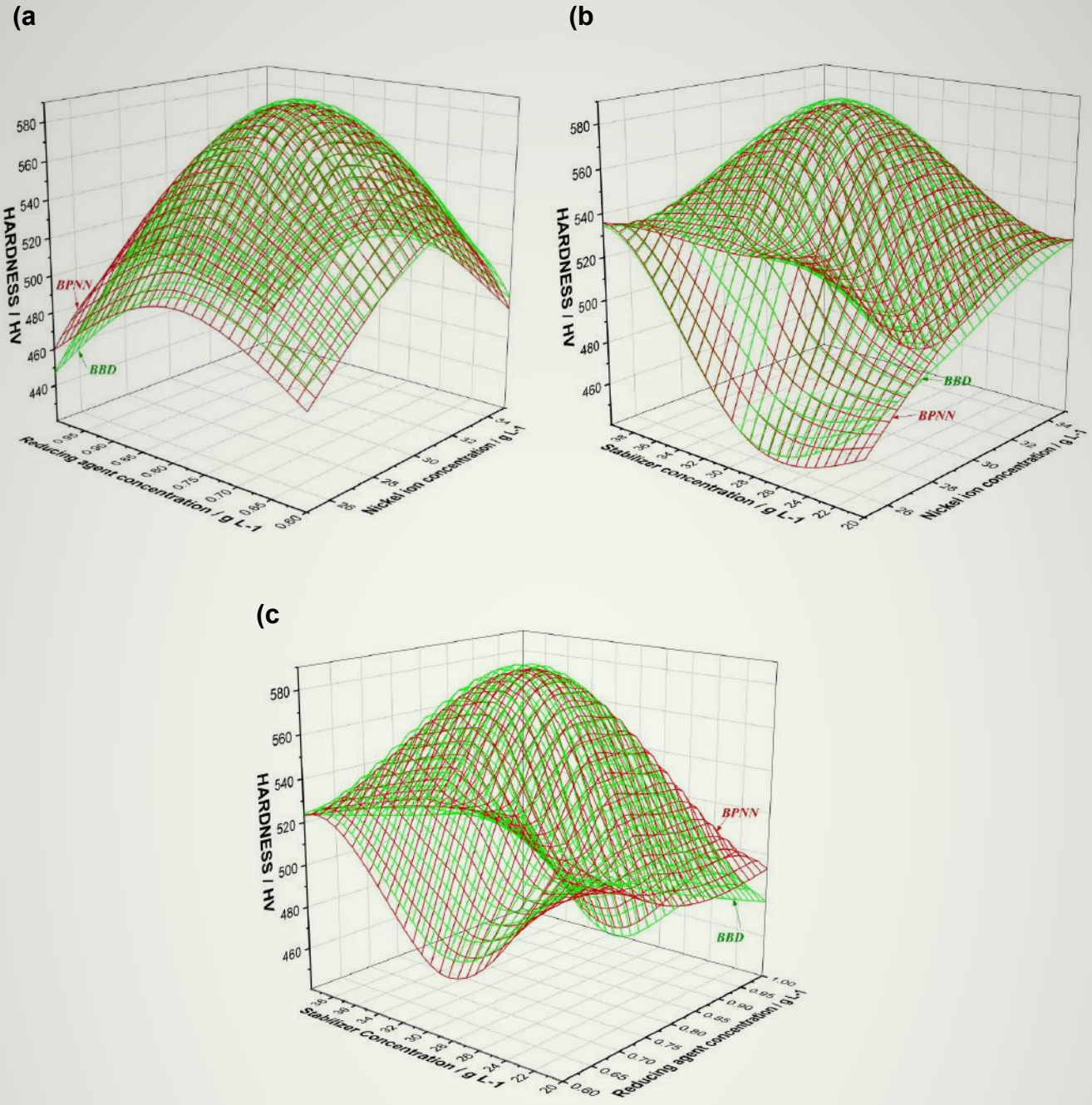

Figure:1 *Comparison of predicted values of BPNN and BBD in a 3-D surface*

Nigerian Society of Physical Sciences

Journal of the Nigerian Society of Physical Sciences

4 (2022) 64-74

https://doi.org/10.46481/jnsps.2022.364

A Review on Transforming Plastic Wastes into Fuel

K. Manickavelan, Ahmed Shammas, Mithun V. Kulkarni, N. Sellappan, R.Rajasekaran, P.Sathish

University of Technology and Applied Sciences, Salalah, Sultanate of Oman.

Abstract:

The application of plastics in various sectors led to its increased production globally and this demand, in turn, caused an overflow of plastic waste in landfills, illegal dumping in the sea, and environmental pollution. To overcome this issue, several alternatives for managing plastic wastes have been developed and among them, reuse, recycling, and energy recovery methods are highly acknowledged methods. Nonetheless, recycling methods come with certain disadvantages like mixing and segregation of wastes, high labor costs associated with segregation and processing, byproduct disposal, and its usage. Researchers have shifted their focus to energy recovery systems because of these drawbacks. Extensive research in this area led to the development of converting waste plastics into liquid fuel through the process called pyrolysis. The pyrolysis process can thermally degrade plastics

in the absence of oxygen producing oil and monomers. The temperature has the most significant impact on the pyrolysis process and depending on the types of plastic wastes, the pyrolysis temperature varies between 300 – 800 °C. The oil yield due to the variation in temperature varies between 45 – 95 wt.%, and the calorific value of the oil has been observed to be in the range of 9679 – 11428.5 kCal/kg, which is similar to the other commercial fuels. Also, the review indicates that it is possible to extract up to 84% of fuel from 1 kg plastic at 360 °C. As a result, after undergoing processes like refining/blending with conventional fuels, pyrolysis-generated oil can be utilized as an alternate source of energy and transportation fuel. Apart from the temperature, the other influencing factors include, the reactor design and its size, pressure, heating rate, residence time and feedstock composition. The pyrolysis process was also examined in terms of plastic types and primary process factors that influenced the end result, such as oil, gaseous, and char. Temperature, reactor types, residence duration, pressure, catalysts, among other critical factors were examined in this work. Furthermore, the study examines technical challenges and current advances in the field.

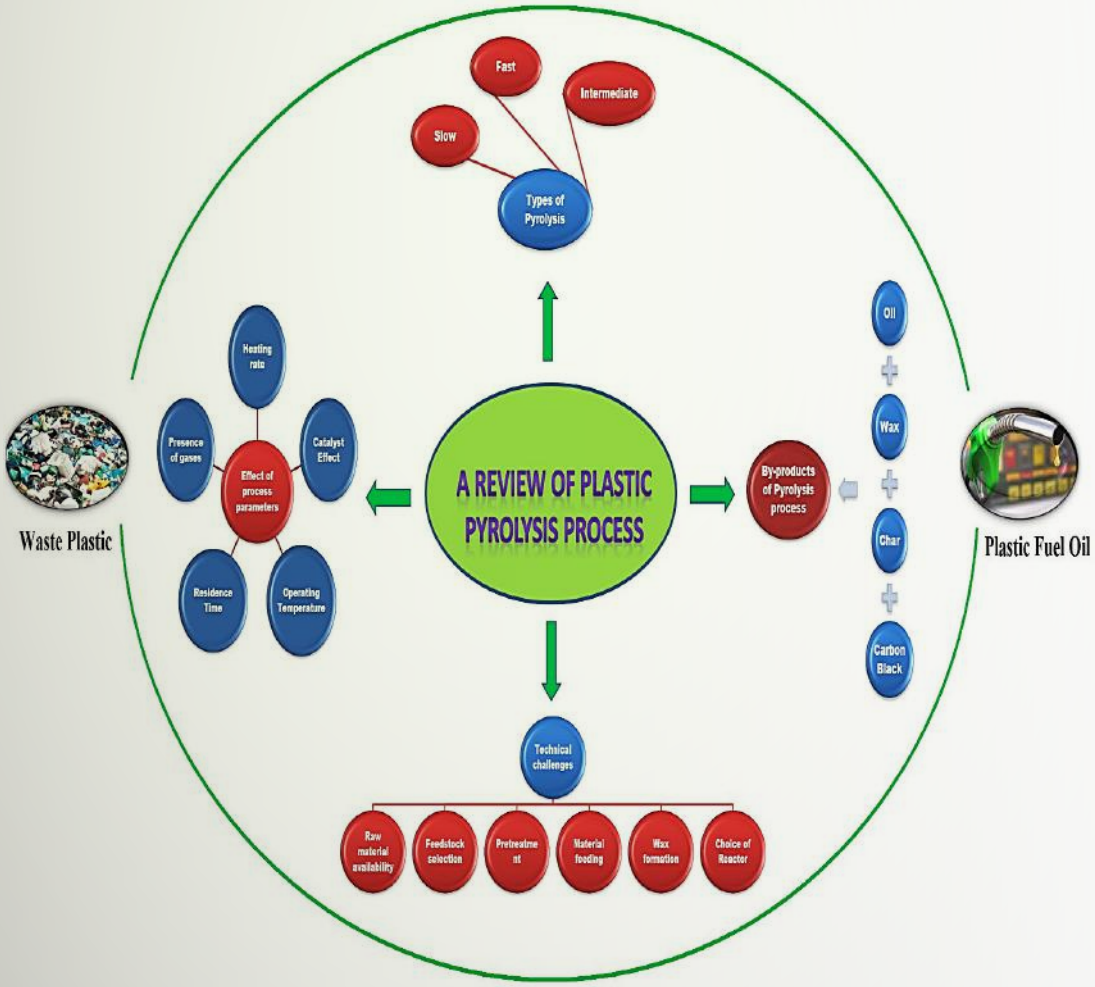

***Figure 1**: Explaining the pyrolysis process and applications*

New Astronomy

96 (2022)

https://doi.org/10.1016/j.newast.2022.101829

Quintessence model of Tsallis holographic dark energy

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[b]*IT Department (Math Section), University of Technology and Applied Sciences, HCT Muscat, Sultanate of Oman.*

[c]*Department of Mathematics, Institute of Applied Sciences and Humanities, GLA University Mathura, Uttar Pradesh, India.*

Abstract:

In order to apply entropy relations and holography to the entire universe, which is a gravitationally nonextensive framework, for consistency one should apply the standard definition for the universe horizon entropy, specifically Tsallis nonextensive entropy. The model of Tsallis holographic dark energy quantified by a new dimensionless parameter δ, which is a generalization of original holographic dark energy is an endeavour for testing the idea of dark energy inside the structure of holographic principle and entropy formalism. The Tsallis parameter δ decides the principle property of the Tsallis holographic dark energy. With the suitable choice of dimensionless parameter δ, this article attempts to analyse the behaviour of Tsallis holographic dark energy using the Tsallis entropy notion. The choice of $\delta < 1$ describes completely the quintessence behaviour of Tsallis holographic dark energy. The dynamics of the scalar field as well as potential of the quintessence is reconstructed for the choices of $\delta < 1$.

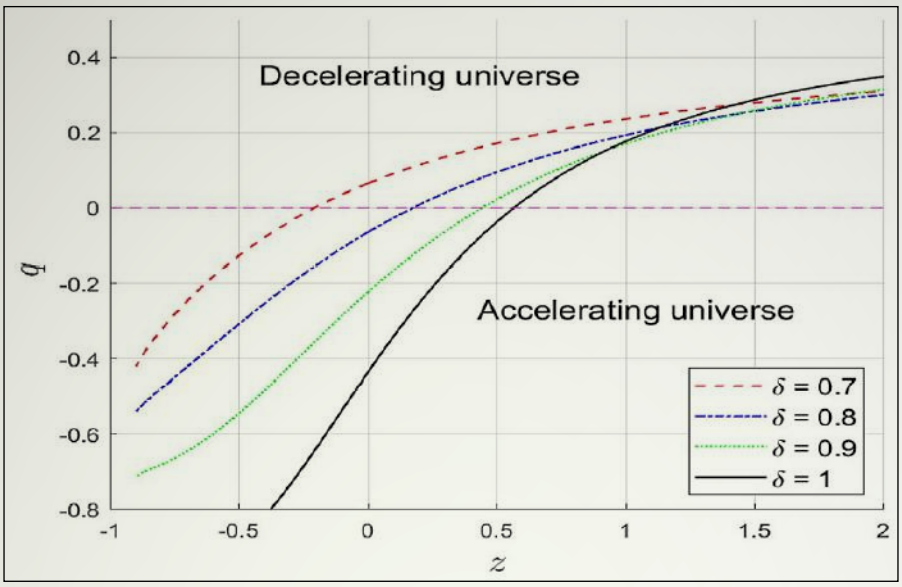


Figure 1: *In terms of redshift, the deceleration parameter for δ = 0.7, 0.8, 0.9 and* Ω_{mo} *=0.3*

Springer Link

The European Physical Journal C

82(233) (2022) 1-8

https://doi.org/10.1140/epjc/s10052-022-10171-w

New Tsallis Holographic Dark Energy

Bramha Dutta Pandey[a], **P. Suresh Kumar**[a], Pankaj[b], Umesh Kumar Sharma[c]

[a] *University of Technology and Applied Sciences, Salalah, Sultanate of Oman.*

[b] *IT Department (Math Section), University of Technology and Applied Sciences HCT Muscat, Sultanate of Oman.*

[c] *Department of Mathematics, Institute of Applied Sciences and Humanities, GLA University Mathura, Uttar Pradesh, India.*

Abstract:

Tsallis entropy is a generalization of the Boltzmann–Gibbs entropy in statistical theory which uses a parameter δ to measure the deviation from the standard scenario quantitatively. Using concepts of Tsallis entropy and future event horizon, we construct a new Tsallis holographic dark energy model. The parameters c and δ will be used to characterize various aspects of the model. Analytical expressions for various cosmological parameters such as the differential equation describing the evolution of the effective dark energy density parameter, the equation of state parameter and the deceleration parameter are obtained. The equation of state parameter for the current model exhibits the pure quintessence behavior for $c > 1$, quintom behavior for $c < 1$, whereas Λ-CDM model is recovered for $c = 1$. To analyze the thermal history of the universe, we obtained the expression for the deceleration parameter and found that for $z \approx 0.6$, the phase transits from deceleration to acceleration.

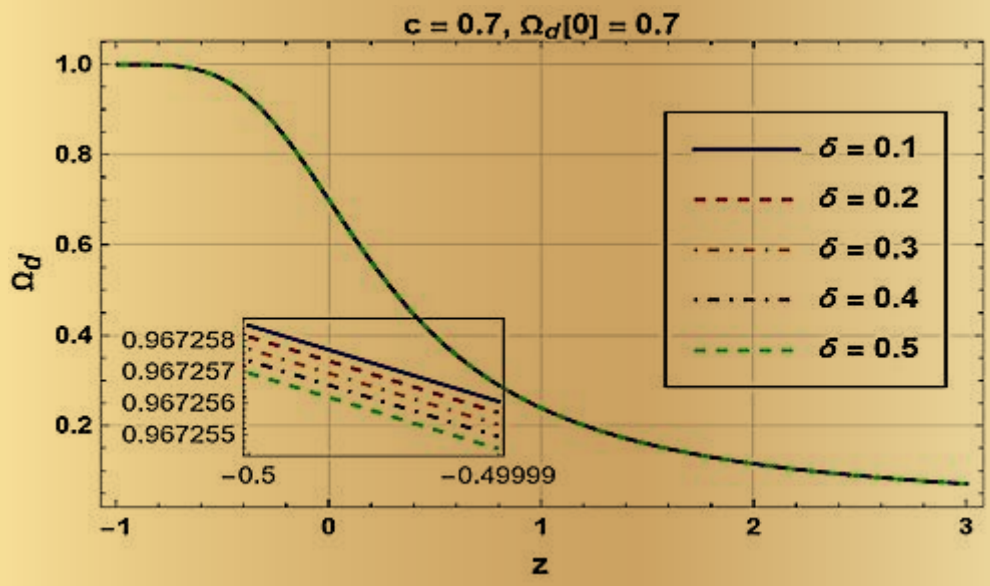


***Figure 1**: NTHDE density parameter Ω_d with c = 0.7 and δ = 0.1 to 0.5 is plotted w.r.t. redshift z by considering Ω_d [Z = 0] ≈ 0.7, M^2_p = 1*

Canadian Center of Science and Education

Journal of Education and Learning

10(2) (2021)

https://doi.org/10.5539/jel.v10n2p28

Exploring Omani EFL Students' Perceptions of the Newly Adopted Online Learning Platforms at the University of Technology and Applied Sciences-Salalah

Muna Kashoob, Rais Attamimi

University of Technology and Applied Sciences, Salalah, Sultanate of Oman.

Abstract

Due to the rapid advancement of the relevant technology and the COVID-19 health pandemic, educational institutions have had to adapt to the ongoing and ever-changing circumstances at a very rapid rate. Thus, the Moodle and Microsoft Teams platforms are being used by teachers to teach students, at the same time fulfilling the initial role of these platforms in serving as supplementary tools to maintain the convention of independent learning. The current study explores the perceptions of a group of Omani students who are currently enrolled in the English Language Center of the University of Technology and Applied Sciences, Salalah campus, (hereafter referred to as UTAS) regarding the new online learning platforms, i.e., Moodle and Microsoft Teams. To this end, a questionnaire was adopted from Rojabi's (2020) study to measure the perceptions of the students towards both Moodle and Microsoft Teams platforms. A sample of 100 students was randomly selected from the population. The findings of the study have offered some important suggestions on how to improve the existing online platforms and pave the way for further research to be conducted in the same area.

International Conference on Embracing Re-modelling and Transformation: Mapping Breakthrough Innovations

January 23, 2021 Delhi, India
ISBN: 978-93-90154-93-7
1 (2021) 32

A study on the VANET protocols for mountainous and sloppy terrains

K. N. Nithesh

University of Technology and Applied Sciences, Salalah, Sultanate of Oman.

Abstract:

Vehicular Ad Hoc Network (VANET) is a type of Mobile Adhoc Network (MANET) technology which can create temporary network areas between moving vehicles and can be used to reduce accidents in sloppy remote terrains like that of the winding roads in mountains. This paper aims to study two different commonly used MANET protocols and to choose a suitable protocol that can be used for VANET networks, pertaining to our scenario of sloppy and remote mountainous terrains. This has the potential to help the implementation of proper and efficient VANET technology especially for use in emergency services like ambulances and accident response teams.

To add to that, it is advantageous to use VANET in mountainous terrain which has no fixed infrastructure and is prone to slides and flooding. The simulation is done using OMNET++ and SUMO models for creating mobility models for the terrain road networks. Dynamic Source Routing (DSR) and Ad Hoc On Demand Distance Vector Routing (AODV) were simulated for comparison and were expected to have less overhead, delay and high range or durability while communicating. Here we have analyzed the protocol in VANET to evaluate its performance and speed by analyzing two parameters- PDF and delay. The simulation results checked the performance of AODV protocol and found it to have the same efficiency as that of DSR when package delivery has been taken into account. But the delay parameter for AODV was found to be more efficient than DSR. This gives AODV a slightly higher edge because the number of packets or the routing load that can be accommodated by AODV is more than a DSR based VANET. The AODV protocol is observed to have more efficiency compared to DSR in the scenario simulated.

Intelligent Computing Systems

ISBN – 978-93-92042-09-6

(2021) 1-5

International Conference on Intelligent Computing Systems (ICICS 2021)
October 28–29, 2021, Kodaikanal, Tamil Nadu, India

A Comprehensive study on Li-Fi: Future Technology

Mohamed Ashik M[a], Venkateswaran R[a], Sundara Vadivelan R[b]

[a]*University of Technology and Applied Sciences, Salalah, Sultanate of Oman.*
[b]*University of Technology and Applied Sciences, Al Musanna, Sultanate of Oman.*

Abstract:

Light-Fidelity (Li-Fi) technology uses LED (light-emitting diodes) to transmit the data wirelessly. Li-Fi is the fast and cost-effective optical version of Wi-Fi. The Li-Fi technology is based on Visible Light Communication (VLC), which uses visible light source for data communication. The VLC and Li-Fi technologies are using the same source of illumination for data communication. Li-Fi Integrated to Powerlines is used for smart Illumination cum Communication. Li-Fi is a new technology for short-range wireless technology to provide connectivity within a localized network environment. Li-Fi works well for general wireless coverage within buildings. Different types of wireless communications are commonly used in daily life. In this research work, different types of wireless data transfer mechanisms such as speed and wave are analyzed. The team has collected information from the public by using close-ended questionnaires to study the public awareness and knowledge of Li-Fi Technology, and it was found that 33% of the population surveyed, were fully aware of the same. However, the remaining percentage showed interest in Li-Fi technology.

Mohammed Ashik

Venkateswaran.R

International Journal of Mathematics and its Applications

9(2) (2021) 55-62

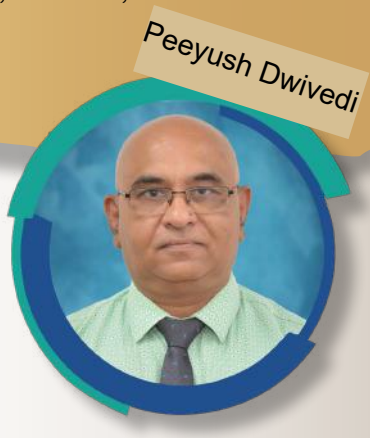
Bayesian Analysis of a renamed failure Model and its Order Statistics: A Mathematical Study

Shradha Dwivedi[a], Sabir Ali Siddiqui[b], **Peeyush Dwivedi**[a], Sanjay Jain[c]

[a]*University of Technology and Applied Sciences, Salalah, Sultanate of Oman.*

[b]*Department of Mathematics and sciences, CAAS, Dhofar University, Salalah, Sultanate of Oman.*

[c]*Department of Statistics, St Johns College, Agra, India.*



Abstract:

The present paper deals in Bayesian analysis of the new distribution which is renamed here as SD (Shradha Dwivedi)-distribution. Bayesian estimates of the expected life, reliability function, hazard rate function is studied mathematically for the distribution, which is an established failure model. Similarly, Bayesian estimates for the order statistics are also found here. The scale and shape parameters had been considered as random variables separately with certain prior distribution for the purpose of Bayesian estimation.

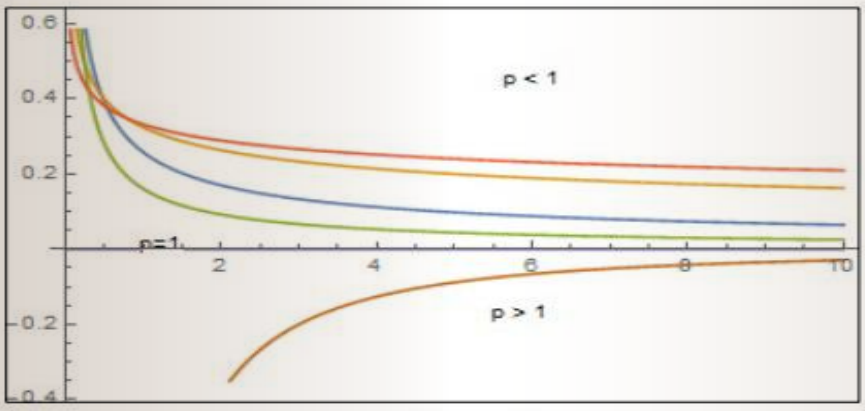


Figure 1: *Probability of SD distribution*

3rd National E conference on Emerging Trends in Advanced Computing and Communications

3 April 2021, Tamil Nadu, India

Conference Proceedings (2021) 225-233

Intruder Detection Using Machine Learning Algorithms

M. Chithik Raja

University of Technology and Applied Sciences, Salalah, Sultanate of Oman.

Abstract:

Intrusion Detection System (IDS) plays a crucial role in Network security. IDS is designed to classify the activities of the system into abnormal and normal. Machine learning based Intrusion Detection has gained attention in recent years and appears promising in providing results with greater accuracy and higher detection rate on attacks classified as novel. In this paper, we used KDD-Cup 99 data set for intruder detection. The dimensionality reduction technique Principal Component Analysis (PCA) is applied in the KDD-Cup 99 data set for selecting the features. The selected feature is applied in the Classification Algorithm Support Vector Machine (SVM) with different kernels such as Radial Basis Function, Linear and Polynomial are evaluated and compared the results. We obtained the result through experiment; it is observed that the intruder detection rate is high with less time while using PCA dimensionality technique in the SVM kernel RBF.

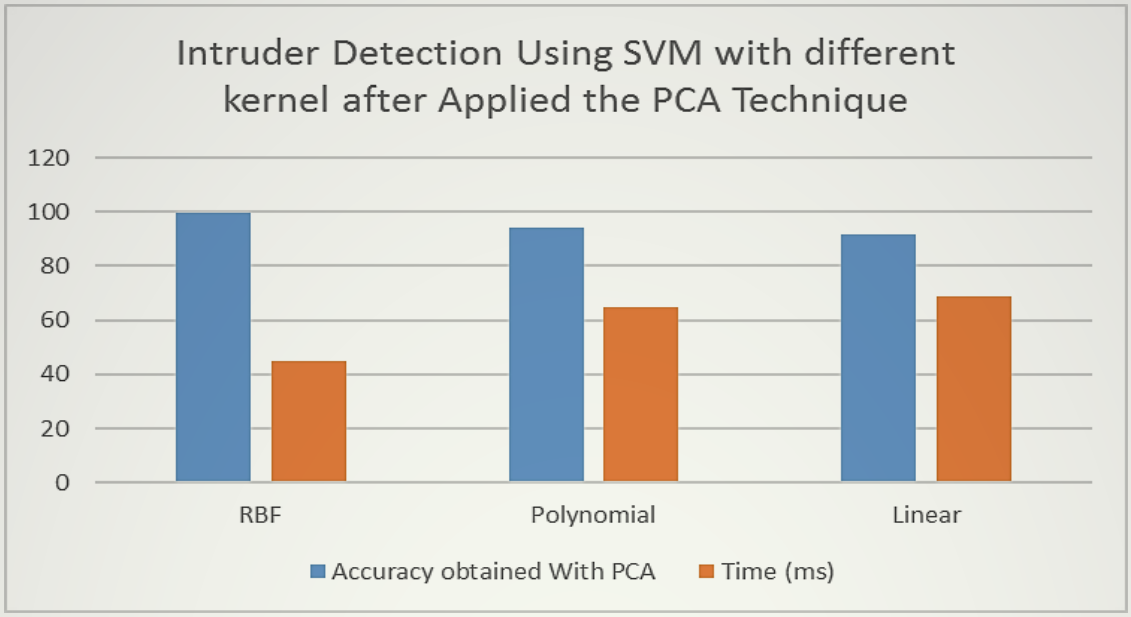


Figure 1: *Accuracy and Execution time comparison in SVM with different kernel, after applied PCA technique.*

MoHERI-TRC Block Funding Awareness Seminars

Research and Consultancy (R&C) Committee, spearheaded by Dr. Mohammed Kashoob, Chairperson at the College Level, with the goal to bring UTAS- Salalah at the forefront of cutting-edge research, organized several MoHERI-TRC block funding awareness seminars for the staff at departmental and college levels. While the departmental level seminars presented by Heads of the R&C committee of the respective departments, focused on procedures and requirements for submission of TRC proposals, the college level seminar addressed by Dr. Mohammed Kashoob acquainted the college staff members with the internal and external evaluation criteria for selection of research grant proposals submitted to the TRC Block Funding Program.

Dr. Mohammed Kashoob,

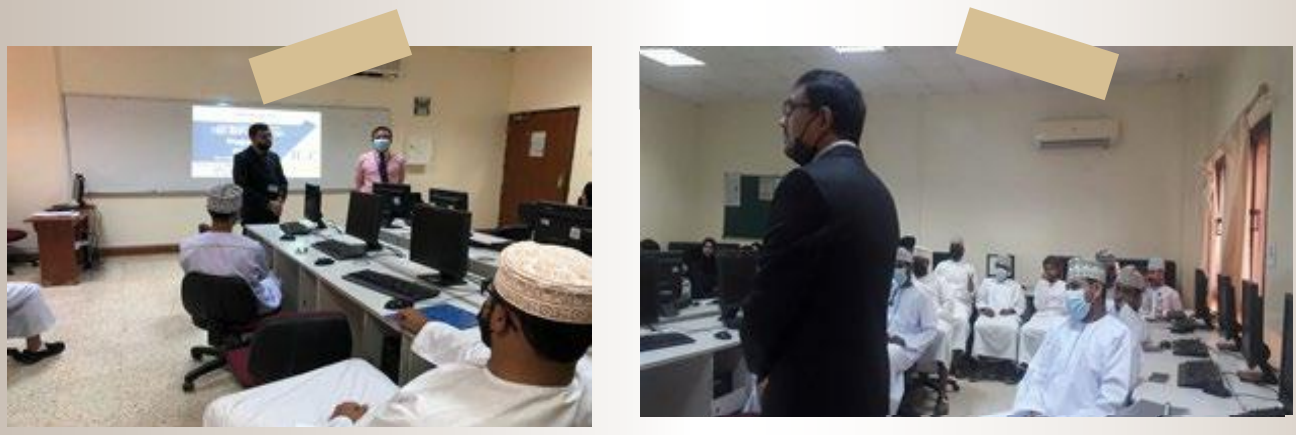


Figure 1: *TRC awareness seminars presented by Dr. R. Venkateswaran (Research Chair, IT Department) to undergraduate students on requirements and procedures for URG (Undergraduate Research Grants) proposals.*

Dr. Venkateswaran from IT Department also organized a workshop for guiding the college undergraduates for submitting proposals in the category Undergraduate Research Grants (URG). The College Committee Chairperson, Dr. Mohammed Kashoob set up a center exclusively to provide feedback, support and guidance to researchers, en route to develop research proposal for submission to TRC. Their success is reflected in the record number of proposals submitted to the TRC, in the year 2022.

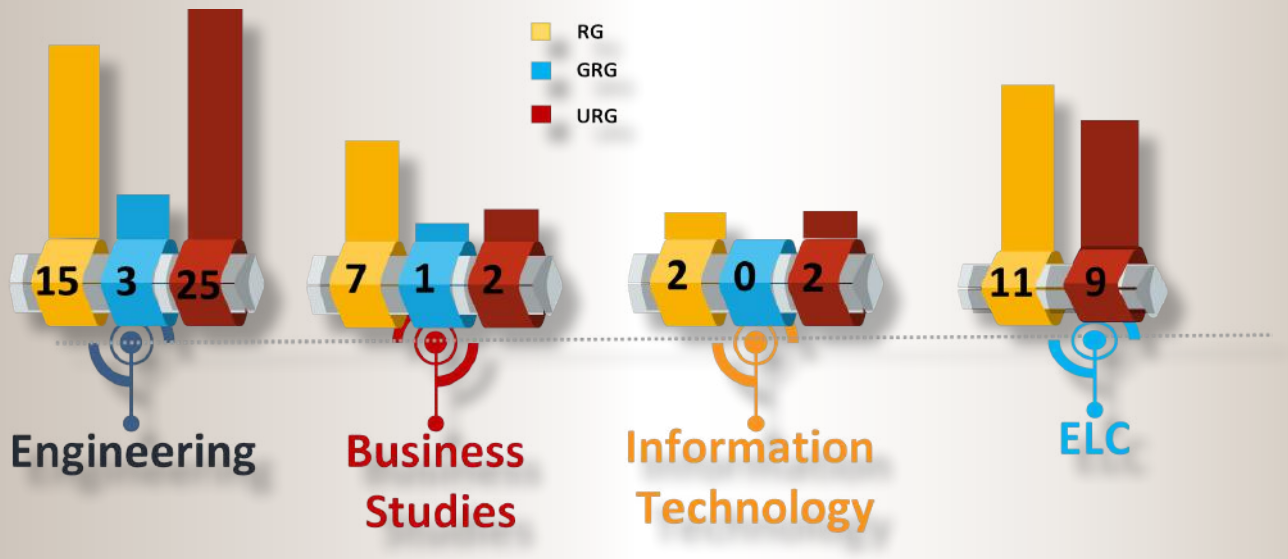


Figure 2: *Department/Center wise TRC project proposal submissions in 2022*

Research Funding Received						
UTAS-Salalah						
Academic Year *(of Award)*	**Depart-ment**	**Project Title**	**Principal Investigator / Co-Principal Investigator (PI/Co-PI)**	**Bud-get/ Fund**	**Funding Body**	**Comments/Sta-tus**
2020-2021	Engineering	Solar Assisted Pyrolysis Process for Extraction of Fuel from Plastic Waste and Investigation of Fuel Properties for Different Applications in Oman	Dr. Manickavelan Kolandasami / Dr. Ahmed Shammas	19535	MoHERI - TRC	Research Grant/ *final stages of completion*
2021-2022	Engineering	Smart Strategies to Prevent Vehicle Accidents at Dangerous Rural Roads in Oman	Dr. Mohammed Kashoob / Dr. Mohammed Al-Maashani	19920	MoHERI - TRC	Research Grant/ *ongoing*
2021-2022	Information Technology	A Mobile-Based Application for Fault Compensation and Location on 132-400 kV Transmission Lines	Dr. Mohammed Al-Mahri / Dr. Mohammed Kashoob	19556	MoHERI - TRC	Research Grant/ *ongoing*
2021-2022	Engineering	Design and Fabrication of a Remotely Controlled Disinfectant Robot for Public Gathering Using Arduino Controller	Al Waleed Khalid Al-Aufi / Dr. Venkatesan and Dr. Sellappan Narayanagounder	1450	MoHERI - TRC	Undergraduate Research Grant/ *ongoing*

TRC Grant Awarded: Category-RG

Solar Assisted Pyrolysis Process for Extraction of Fuel from Plastic Waste and Investigation of Fuel Properties for Different Applications in Oman

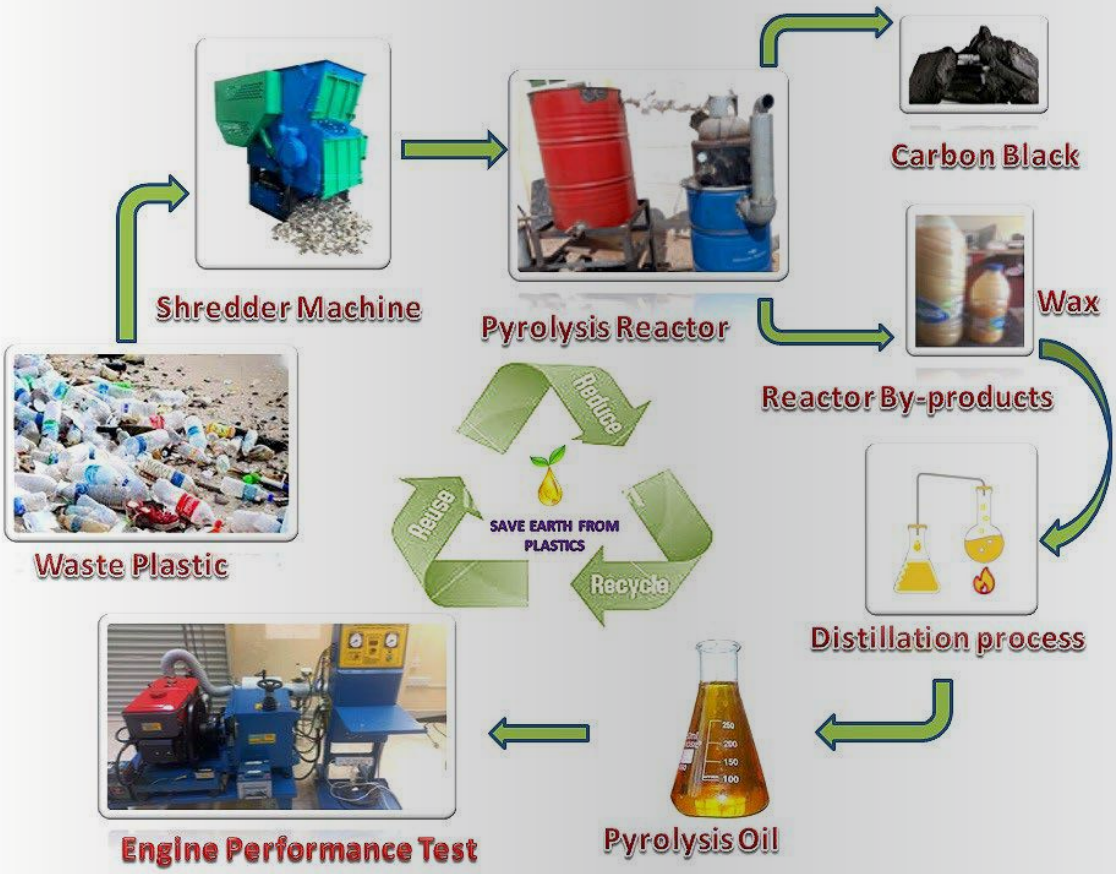
Research Team:

1. Mr. K. Manickavelan: *Lecturer, Mechanical Engineering :* **PI**
2. Dr. Ahmed Shammas: *Lecturer, Mechanical Engineering :* **Co-PI**
3. Dr. Mithun V. K.: *Lecturer, Mechanical Engineering :* **Co-I**
4. Dr. P. Sathish: *Lecturer, Mechanical Engineering* : **Co-I**
5. Dr. R. Rajasekaran: *Lecturer, Diploma First Year, Department of Engineering :* **Co-I**
6. Dr. N. Sellappan: *HoS, Mechanical Engineering :* **Co-I**

Budget Allocated: **19,535 OMR**

Project Duration: November 2020- April 2022 *(final stages of completion)*

Graphical Abstract:



Summary of the Progress:

In the modern world, plastics can be found everywhere, and more than 300 million tonnes of plastics are produced annually around the world. The popularity of plastic usage is due to its low production cost, light weight, highly durability, acid-resistance, and high flexibility. As consumption increases, plastic pollution turns out to be a global crisis. Only 10 percent of plastic waste gets recycled and the rest 90 percent goes to landfills, and some are burnt. Currently in massive production levels, most of the plastic waste is improperly disposed and it leads to serious ecological problems. There arises an urgent need for a far-sighted and holistic solution to this problem.

At first, different plastic wastes such as polyethylene (PE), polystyrene (PS), polypropylene (PP) were collected, separated, cleaned, and dried. These were shredded into small pieces using a plastic shredder machine procured using the research funds. The shredded plastic waste was fed into a pyrolysis reactor, which was fabricated in-house and heated up to a 450° C in the reactor unit. The outputs of the pyrolysis process were carbon black, combustible gas, and wax. A remarkable outcome of the current research work is that all the by-products can be put to important applications. Carbon black is used as a stabilizing ingredient to boost the strength and longevity of automobile tyres. It has the property to carry away the heat from all sections of the automobile. Another by-product of the pyrolysis process is combustible gas which can assist in the heating of the pyrolysis reactor. The gas from the pyrolysis process was cooled by a solar assisted condensing unit, which produces wax/oil depending on the nature of the plastic. Further, wax when distilled yields the plastic fuel oil. Thus the wax was heated up to a 300°C in the distillation column and oil was obtained. The distilled oil was sent to the OQ Salalah, Oman for an oil-property study and to compare its properties with the conventional fuel oils. Further, from the results of the investigation, it is planned to blend the plastic fuel oil with the conventional oil in different ratios and study the engine performance.

Progress made/Achievements:

- Reactor unit and condenser were fabricated in-house.
- One of the by-products of the pyrolysis process was wax.
- In the distillation column, wax was heated up to 300°C and oil was collected.
- The collected oil was sent to OQ Salalah, Oman for studies on oil properties.
- Exhaust gas analyzer is now received, and
- Engine performance studies, *(awaited)*.
- Findings of the research work done were published in an international journal and were presented in 2 conferences, [paper presentation].

Papers published and presented in conferences:

- Manickavelan, K., Ahmed, S., Mithun, K., Sathish, P., Rajasekaran, R., & Sellappan, N. (2022). A Review on Transforming Plastic Wastes into Fuel. *Journal of the Nigerian Society of Physical Sciences*, *4*, 64–74. https://doi.org/10.46481/jnsps.2022.364
- Manickavelan, K., Ahmed, S., Mithun, K., Sathish, P., Rajasekaran, R., & Sellappan, N. (2021). Design for the Extraction of Plastic Fuel Oil using the Thermal Pyrolysis Process. *The Industrial Revolution Four (IR4) Virtual Conference, (June 8)*, Ibra, Oman.
- Manickavelan, K., Ahmed, S., Mithun, K., Sathish, P., Rajasekaran, R., & Sellappan, N. (2022). Conversion of Waste Plastic into Fuels to Reduce Environmental Pollution. *First International Conference on Environmental Science and Engineering for Sustainable Development (ESESD 2022), (March 9-10)*, Sohar, Oman.

TRC Grant Awarded: Category-RG

Smart Strategies to Prevent Vehicle Accidents at Dangerous Rural Roads in Oman

Research Team:

1. Dr. Mohammed Kashoob: *Lecturer, Electrical Engineering :* ***PI***
2. Dr. Mohammed Salim Al-Maashani: *HoS, Diploma First Year :* ***Co-PI***
3. Engr. Ahmed Al-Marhoon : ***Research Assistant***

Budget Allocated: 19,920 OMR

Project Duration: December 2021- December 2023 *(ongoing)*

Abstract/Summary of the progress:

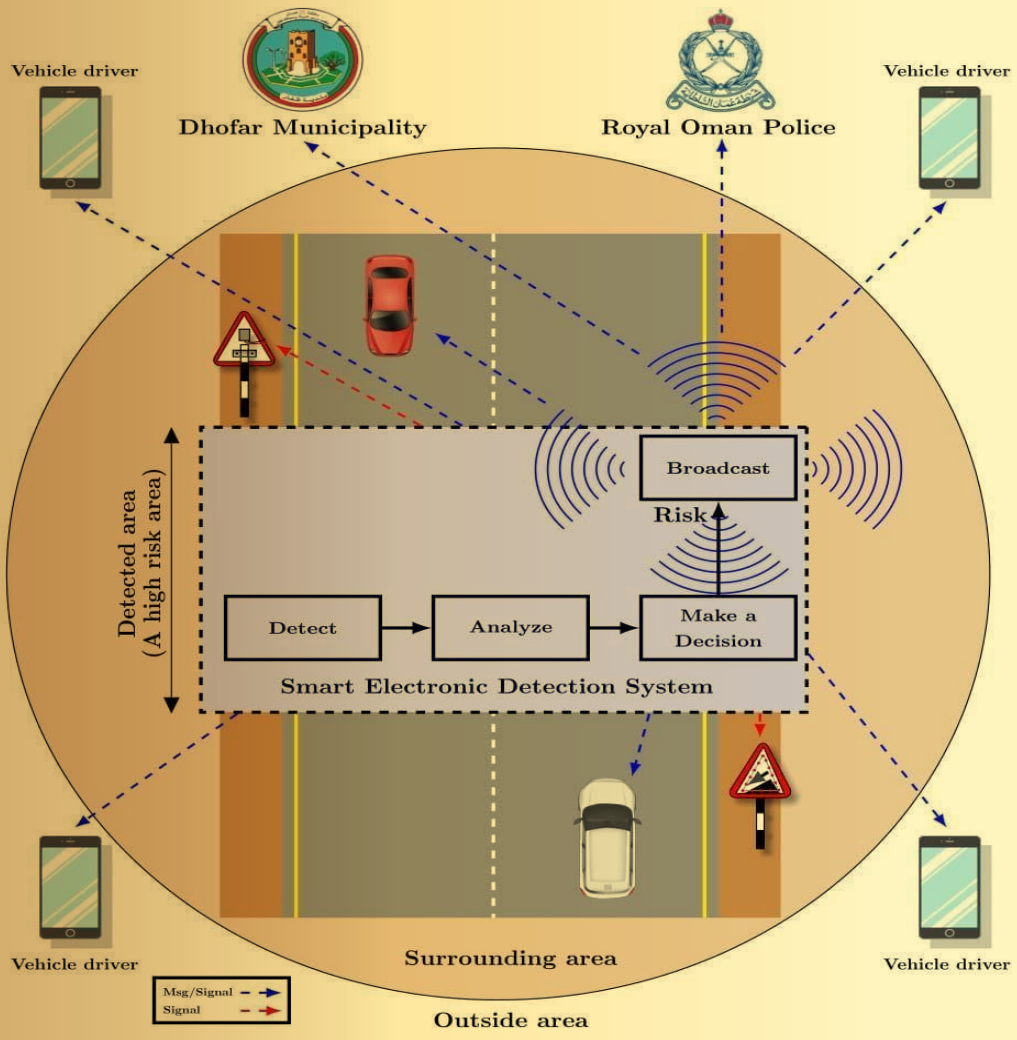
With the rolling out of 5th-Generation (5G) wireless mobile networks, the vision of Internet of Things (IoT) is achievable. This is because the features of 5G allow the connectivity of thousands of devices. A smart city uses IoT to collect data and analyze it, to manage resources and services within the city. In the Sultanate of Oman, Oman Smart City Platform is a pioneer in smart city initiative. Also, there are plans to transform Muscat and Duqm into smart cities.

A smart transportation system (i.e., smart road/highway, signs or vehicle systems) is one of the major components of a smart city. In such a system, data is collected and analyzed to monitor traffic, manage transportation services and prevent accidents to save lives. An important application of a smart transportation system could be in preventing accidents at locations with higher probability of vehicle accidents such as dangerous rural roads. Mountain ranges constitute a large percentage of the rural areas of Oman and surround many of its cities. Mountainous roads connect these cities to other parts in the region. In general, the rural roads at the mountains are curvy and steep, for the greater part of their length. Driving through these roads with a high speed may result in vehicle accidents when combined with precarious factors like presence of risky objects, wandering animals, road flaws and bad weather conditions.

This research explores the possible smart road strategies to prevent vehicle accidents at dangerous rural roads with special focus on mountain roads. The main strategy in this research is the design of a smart electronic system, and installation of the same at the afore-mentioned locations. Smart electronic system collects data and detects objects/ risks to alert vehicle drivers, Royal Oman Police, and the local municipality to the

above cited risks. The other explored strategy is centered on calming vehicle-speed at these dangerous countryside roads. Speed calming techniques serve complementary to the main strategy in the system. The outcomes of the research can be extended to other roads (i.e. within a city), but the main focus of the project is on rural roads in general and specifically mountains on the rural roads.

Graphical Abstract:



Progress so far:

- Analyses of the traffic accidents at rural roads in Oman is conducted.
- The project is in the initial design phase.

Dr. Mohammed Kashoob

Dr. Mohammed Al-Maashani

TRC Grant Awarded: Category-RG

A Mobile-Based Application for Fault Compensation and Location on 132-400 kV Transmission Lines

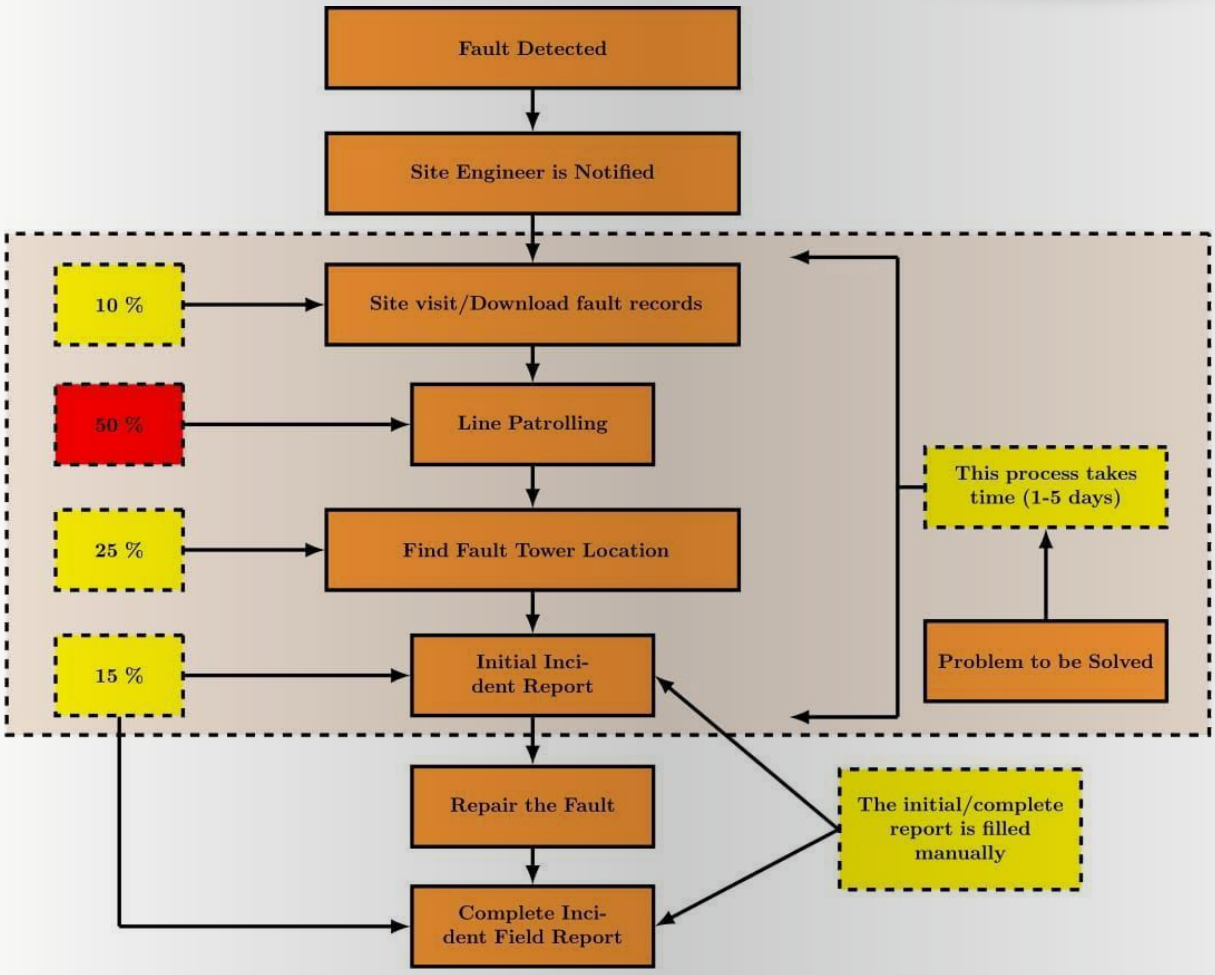
Research Team:

1. Dr. Mohammed Al-Mahri: *Lecturer : **PI***
2. Dr. Mohammed Kashoob: *Lecturer, Electrical Engineering : **Co-PI***
3. Engr. Haitham Al-Habsi : **Research Assistant**

Budget Allocated: 19,556 OMR

Project Duration: December 2021- December 2023 *(ongoing)*

Graphical Abstract:



Abstract/Summary of Progress:

Oman Electricity Transmission Company (OETC), which is a semi-government company, owns and operates the Main Interconnected Transmission System (MIS) and Dhofar transmission network in the Sultanate of Oman. These networks operate with high voltages of 132 kV, 220 kV and 400 kV overhead transmission lines (OHLs). The total length of the 132 kV transmission circuits is 3,685 km for MIS network and 524.19 km for Dhofar network. The total number of MIS and Dhofar network 132 kV grid stations is 92. Dhofar transmission network consists of eight 132 kV grid stations, 132 kV overhead transmission lines and 33.64 km, 132 kV underground cables. The MIS network has 1,743.22 km and 1,291.16 km length for the 220 kV and 400 kV transmission lines, respectively. The MIS and Dhofar network are expanding rapidly due to the increased demand.

A total of 221 OETC incidents or faults on OHL were reported, in the period from 2015 to 2018. The distance to these faults from the nearest grid station is obtained through a distance protection relay. The OHL engineers use this line fault distance combined with line patrolling and visual inspection to locate and then repair these OHL faults. Currently, this process takes from a few hours to 5 days in worst case scenarios. The time taken depends on the accuracy of fault distance, how far is the fault location, topography of the location and bad weather conditions. Based on the type of distance relay, the relay fault distance may not be accurate and the distance error is significant. As the OETC network is expanding, locating, identifying and repairing OHL faults may take more time and become more difficult.

In this research, a mobile-based application incorporating a solution to compensate for the line distance fault error is proposed which would significantly reduce the time taken to locate, report and repair the OETC-OHL faults. This mobile application is called OETC tower fault locator and is developed on Android and iOS mobile platforms. Based on input parameters, the application shows the OHL fault location on an interactive map with real-time directions from the OHL engineer location to the tower fault location. New fault incident reports can be generated and saved in a database and old incident field reports can be reviewed by the engineers through the application.

Figure 1: *132 kV OHL towers located at the hills and mountains of Dhofar.*

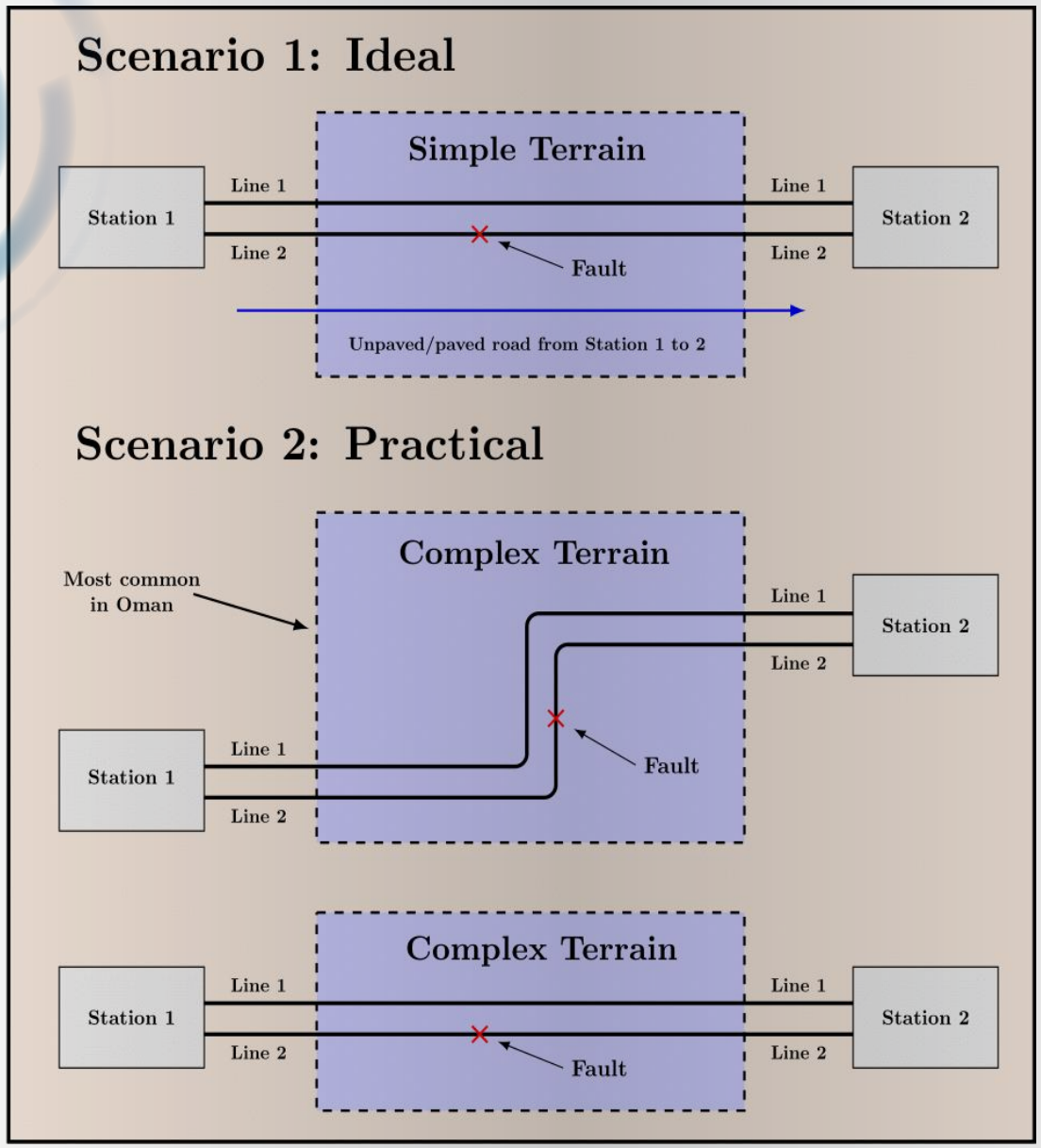


Figure 2: *Problem Description.*

Progress: The project is in the initial design/programming phase.


CONNECT
University of Technology and Applied Sciences-Salalah
1st Edition, June 2022
CONNECT
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UTAS Salalah

TRC Grant Awarded: Category-URG

Design and Fabrication of a Remote-Controlled Disinfectant Robot for Public Gathering Places using Arduino Controller

Research Team:

1. Mr. Al Waleed Khalid Said Al Aufi: *Advance Diploma :* ***Team Leader***
2. Mr. Salim Said Abdul Aziz Abdulrahman Al Olaiyan: *Advance Diploma :* ***Team Member***
3. Mr. Salim Musallam Said Al-Maashani: B. Tech : Team Member
4. Engr. T. Venkatesan*: Lecturer, Mechanical Engineering :* ***Faculty Mentor***
5. Dr. N. Sellappan: *Head of the Section, Mechanical Engineering*
6. Engr. Jamin E. Santiago: *Lab Instructor, Electrical Engineering*

Budget Allocated: 1,450 OMR

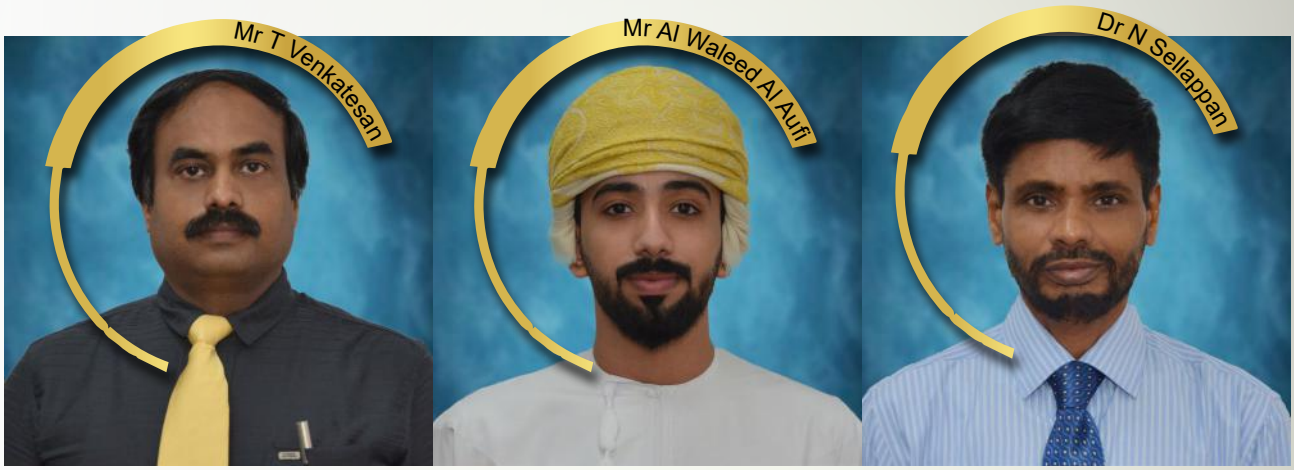
Project Duration: December 2021-December 2022 *(ongoing)*

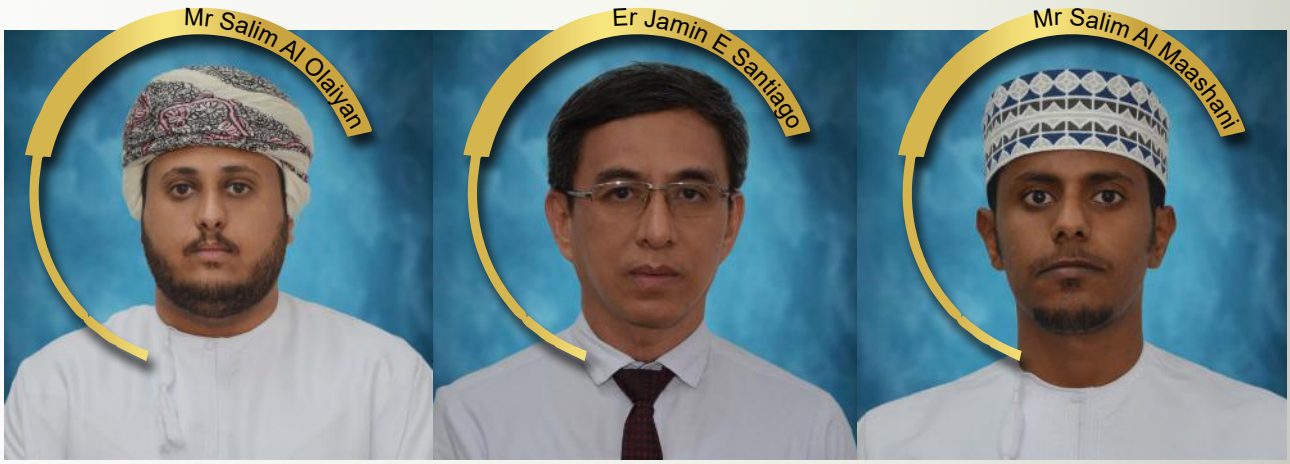
Summary of the progress:

Coronavirus (Covid-19) is primarily transmitted through respiratory droplets and contact, when a person coughs, sneezes, sings or speaks loudly. So, it is important to control the spreading of coronavirus in public places like prayer halls, hospitals, schools, malls, and marketplaces, where more people gather very often. Maintenance of cleanliness in the public places is very important to control the spread of Covid-19. Most of these places are usually cleaned by the healthcare workers. This will affect the health of the workers, due to the exposure to a possibly contaminated environment. The aim of this project work is to contribute to the fight against the spread of Covid-19 in public places and other enclosed areas, by avoiding human intervention. A robot with desirable control parameters is designed for this purpose. It can be operated by a remote-control device. This disinfection mechanism utilizes fogging sprayers. The robot comprises a remotely operated vehicle, a disinfectant spraying unit, a monitoring unit, and a controller unit. A DC powered vehicle will be used as the carrier for the robot, and it would be allowed to move at slow speed to disinfect all the places, satisfactorily. It consists of a spray system, audio video wireless transmitting system and a DC motor drive system. These three systems are placed on a compact vehicle, which is moved by an Arduino controlled DC motor.

Progress so far:

- Completed circuit diagram: heart of the current project, which integrates the three different systems.
- All components are procured.
- Structure fabrication and assembly *(in progress)*.
- Integration of Mechanical and Electrical components and execution of the prototype *(yet to be done)*.





Book Published

Ideas, Innovation and Entrepreneurship

Edition: First (2022)

Dar-Al Luban Publishing ®
Sultanate of Oman.

Dr. Mohammed Rashid Al-Mamari

College Dean, University of Technology and Applied Sciences, Salalah, Sultanate of Oman.

Short description of the book:

Idea is the main capital for any project. If the idea is a brilliant one, there is absolutely no limit to what can be achieved. However, most of the ideas fail, not because they were bad but because they lacked execution plan. This book aims to provide the strategies to the owners of creative ideas to transform their plans into a tangible reality. The book also touches on ways to chime in the ideas with the available resources and opportunities. Further, the plan of action needed for the leadership of the community, society and the national economy is also discussed.

This is a very useful book for entrepreneurship enthusiasts. The book also shares the success stories and journeys of Omani entrepreneurs and start-ups such as Thawani Pay, Drewel Company, Al Alama Company and Zajil Company, which have established themselves as brands with strong foothold.

More so, this book is for the young entrepreneurs, individuals, and companies, and provides them with the essential elements needed to prepare their pitches for the market. It is mainly for those who believe in their ideas and will go extra mile to prevent them from going flat.

Book Published

Mayas Publication®
Salem, Tamilnadu
India.

Entrepreneurial Development

ISBN:978-93-89507-58-4

Edition: First (2020)

Dr. Rathna Chellappa[a], Adarsh Mittal.A.[b]

[a] *Department of Business Studies, University of Technology and Applied Sciences, Salalah, Sultanate of Oman.*

[b] *Department of Management Studies, Annai Group of Institutions, Kumbakonam, Tamilnadu, India*

Short description of the book:

The concept of entrepreneurship gained momentum since the beginning of 19th century A.D and in modern times it has been rightly accredited as the backbone of global development. Hence, to study the development of entrepreneurs is of paramount importance for the youngsters today. The objective of this book is to help students:

- understand the concepts of entrepreneurship development
- acquire requisite knowledge and skills for becoming successful entrepreneurs and
- formulate and develop business projects.

The authors aim at providing students with a handy guide dealing directly for their needs from the point of view of examinations. Flow charts and diagrams are given, wherever necessary to reduce dependence on theory. Questions for self – study are provided at the end of every chapter.

Book Chapters Contributed

MTC Global
Bangalore, Karnataka
India.

Competency Mapping-A Tool in monitoring Employee Performance
ISBN No. 978-93-5578-597-8
Edition: First (2022)

Chapter contributed:
Blended Learning-The Identification Tool of Competency for Online Teaching Success. *(Pages 24-30)*

Dr. Rathna Chellappa[a], Lakshmi H. R.[b], A. JohnWilliam[c]

[a] *Department of Business Studies, University of Technology and Applied sciences, Salalah.*

[b] *Department of ECE, Research Scholar, VTU Research Centre, Bangalore, India.*

[c] *Department of Management Studies, Kristu Jayanti College, Bengaluru, India.*

Short description of the Chapter:

Blended learning involves a combination of classroom teaching and online learning. It is now possible to craft student-centric quality teaching materials involving modern multimedia tools. Electronic lectures, unlike face-to-face teaching, can be perpetually accessed by learners and that helps in better understanding and memorization of concepts. With skillful use of ICT, content-rich, interactive lessons can be developed that excite learners and transform the learning environment, making it student-centered and where the teacher becomes the facilitator rather than knowledge provider. With blended learning, a teacher can accurately assess the knowledge a student has gained and can provide him e-materials to explain concepts more efficiently. Attractive e-lessons can create greater interest in learners.

Blended learning mode opens the possibility of a greater teacher-student interaction and empowers the student with knowledge and skills. Teachers and students remain more engaged with each other; students get more opportunity to interact with the teachers to get deeper knowledge. The mix of teaching approaches helps more students to grasp subjects easily. This will reduce stress on slow learners who may find face-to-face classroom teaching more challenging. Fast learners will get more satisfaction due to content-rich e-materials.

International Journal of Innovative Research in Engineering

Dr. Rathan Raj Rajendran from Civil Engineering, has been appointed as one of the **editors** on the Advisory Editorial Board of the *International Journal of Innovative Research in Engineering (IJIRE).* **Published by Fifth Dimension Research Publication (P) Ltd.**

Dr. Rathan Raj Rajendran also provided his expertise as an **Overseas Examiner and evaluated PhD Thesis titled**- *"Investigation on the Performance on Eco Concrete".*

Er. Deiveegan also from Civil Engineering, has been appointed as a **reviewer** in *Journal for Renewable Energy Focus*, England. **Publisher: Elsevier, Review Hub.**

ELSEVIER

Towards the Renewable Energy!

By

Dr. Zakiya Said Mahad Al Amri

Assistant Professor (Physics), Department of Engineering

Clean energy, Green energy, or *Renewable energy* are terms that are often used interchangeably. However, there is one basic but sometimes confusing difference between them. Renewable energy is energy taken out from the sources that are naturally and constantly renewed. Therefore, they are the opposite of the fossil fuels resources, such as coal and oil, which are finite resources. Green energy is any energy type that is generated from natural resources, such as sunlight, wind, or water. Green often comes from renewable energy sources although there are some differences between renewable and green energy. While most 'green' energy sources are also 'renewable', not all 'renewable' energy sources are completely 'green'. One example of that is hydropower energy. It is generated from the natural rapid flow of water. Though it is considered renewable energy based on how it is generated, some experts argue that the process of generating huge amounts of energy from water is not truly 'environmentally friendly', due to the deforestation and industrialization involved in the process of constructing big hydro dams. On the other hand, clean energy is energy which when used, produces little or no greenhouse gases. This explains why some experts call it clean energy.

Here in the Sultanate of Oman, there are various sources of renewable energy such as solar energy and wind energy. From this standpoint, the Sultanate continues to move towards the use of renewable energy sources. This made it rank third in the Middle East and North Africa (MENA) region, and 38th globally in the field of renewable energy. This is in addition to obtaining the fifteenth position in the category of emerging economies as reported by Climatescope assessment-2021, published by Bloomberg in December 2021. It is worth mentioning that the Climatescope assessment focuses on evaluating investments in energy diversification globally as well as assessing ability of countries to attract capital for low-carbon technologies while fostering a greener economy. The Sultanate is well positioned to adopt an ambitious energy diversification strategy and move towards renewable energy. The Sultanate has also deepened its drive to diversify its energy sources by expanding renewable energy projects. Thus, it advanced in the evaluation index that included 136 countries around the world, including 29 developed countries and 106 emerging

markets, according to Oman News Agency.

The Sultanate has established a policy of shifting to alternative energy. To raise the rate of alternative energy use to 39% by 2040, as per the Oman 2040 vision, which it is working to implement through the efforts of the Public Services Regulatory Authority.The aim of this step is to enable the optimal use of energy sources and to pay attention to the development of renewable energy projects to support economic diversification plans and promote sustainable energy. As part of this strategy, the Sultanate of Oman launched last January 2022 the first spot electricity market in the Middle East, with the aim of liberalizing the electricity market and attracting more investments. It also launched the Ibri Solar Energy Project, its largest renewable energy project, with a capacity of 500 megawatts.

The Sultanate has also included wind energy among its renewable energy sources; The Dhofar Wind Power Plant in the Wilayat of Shaleem and the Hallaniyat Islands is the largest wind power plant in the region, with a production capacity of 50 megawatts. Recently, the Sultanate announced its intention to establish a second solar power plant with a capacity of 500 megawatts in Wilayat Manah which supports the sultanate's direction toward using renewable energy to meet the demand for electricity.

Photo Sourced from: https://www.intelligentcio.com/me/2021/05/31/oman-green-energy-hub-will-rival-in-size-us36-billion-aussie-mega-project/

Are We Heading to a Cashless Future?

by

Dr. Mohammed Rashid Al Mamari

Blockchain is considered as one of the most important pillars of the 4th Industrial Revolution. The way value can be directly transferred between contributors in a convenient and trusted manner, has opened numerous possibilities. The fact that the Blockchain technology is decentralized; wherein records of all the transactions are distributed with all clients (users), gives it an edge. By definition, Blockchain is a digital ledger which records transactions related to a variety of assets and whose access is distributed among authorized users. In comparison to other digital systems, it is more secured as data are bound in cryptographic keys, and only people with the right key can access or modify it. Different blocks are connected with each other using hash codes; and if the hash code for any of the blocks in the chain changes, the whole transaction will get deleted and no longer be accepted. Today, applications of the Blockchain technology are developing across all the

segments of the society and industry. Some of the examples of the important applications are smart contracts and cryptocurrency.

The roots of cryptocurrency technology can be traced back to 2009 when Bitcoin- the first digital currency was launched. Cryptocurrency appeared in 2009 after the great economic recession of 2008. In 2008, hundreds of banks got bankrupted globally, and many people lost their financial assets. Consequently, people's confidence in the banks' safety declined, which encouraged them to invest in the digital currencies. Cryptocurrency has become a worldwide phenomenon in the recent years. As of March 2022, it was estimated that there are over 18,000 cryptocurrencies in existence and the number is still on the rise.

Cryptocurrency investments are increasing daily and are sometimes referred to as the "future of money". However, with its advantages come challenges. One of these disadvantages is that more often than not, its source cannot be traced, thus can be used in money laundering. It can also be used in terrorist operations, drugs and weapons trafficking. Because of these reasons, to this day, there are countries which have criminalized the use of digital currencies in their laws. On the other hand, there are other countries like China having their own digital currencies. These countries encourage their citizens to use the indigenous cryptocurrencies. This will give them more control over the entire cryptocurrency procedures and protocols. Moreover, countries like USA impose taxes on the cryptocurrency as done in the case of banknotes. Further, some other countries maintain an ambiguous status; neither they prevent its rise nor they declare it legally. In comparison to the US and other European countries, the financial regulators in the Gulf Countries have been significantly slower in accepting the Cryptocurrency. However, in the past two years, cryptocurrency has gained momentum and acceptance, which have got reflected with jump in investment in cryptocurrencies and overall support in the Gulf Countries' financial markets.

In my opinion, the time is round the corner when all the countries will have no choice other than using cryptocurrencies. What is now required from the countries is to regulate and legislate the cryptocurrency market to reduce the potential risks arising out of illicit economic activities.

Photo Source:

https://www.pxfuel.com/en/free-photo-qfpdt

Contributions

from Staff and Students

Prelude

Words have the power to crystalize insights, wits and perceptions that carve our beliefs, shape our character and ultimately create our world. In these pages, we are honored to share the articles written and contributed by our staff and students, as they penned down their thoughts, reflections, ideas, views, opinions and realizations. In these words, we will see through their joys, their frustrations, their aspirations, and their hopes for a better life and a more secured, safer and bright future, moving forward.

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gy and Applied Sciences-Salalah
1st Edition, June 2022
ECT

In the 2016 Rio Olympics, the world witnessed a wonderful display of kindness and compassion personified. New Zealander Nikki Hamblin and American Abbey D'Agostino competed in the 5,000 - meter race but half-way through the competition, both athletes suffered a collusion and fell on the ground. Abbey was able to get up quickly but instead of continuing to run she opted to stop and helped Nikki to get up. Just seconds after the two were back on track, Abbey started to falter because apparently her right leg was severely injured. Nikki noticed her and without any hesitation she stopped and turned to Abbey with a gesture of help. At the finish line, the world saw the two athletes embracing each other. That unforgettable moment was captured on camera and truly was very heartwarming. It embodies the unquestionable reality that in this race called "life", we will stumble and fall, that there will be bumps, cracks and potholes down the road but we must carry on and we don't have to run it alone.

In this race called "life", let us allow others to help carry our burdens and not be swallowed by an excessive pride. The pandemic has taught us one important lesson, and that is this undeniable fact that the virus does not discriminate. You can be the most powerful and richest man on Earth but when the virus strikes you, you become helpless on your own. Hence, if you are to survive, you need others.

In this race called "life" let us also remember that we have an individual social responsibility to lend a hand to those in need. Let us learn to nurture an attitude of selfless giving and not expecting anything in return. For always, it is best to give than to receive, and altruism is contagious. When people experience a generous kindness, they are more likely to treat others with the same act of benevolence.

In this race called "life", everything is not a bed of roses nor a crown of thorns. So learn to embrace life, its ups and downs, its highs and lows. Always remember that you are not competing with anyone else but yourself. So, if you get tired, give yourself time to rest, and if you are broken, a time to heal.

In this race called "life", we are all guaranteed "a finish line", but unlike the Olympics, we have individual time clocks, with unknown time limits. So learn to relish the complexities of life, its joys and pains, each day at a time. As Hans Christian Anderson once wrote, "*life is like a beautiful melody, only the lyrics are messed up*". Everyone is just trying to get the words right, and yes we do make mistakes, but know that with perseverance, patience and hard work, a beautiful masterpiece is just waiting to be uncovered.

by
Mr. Neil Raymond Saletrero
Lecturer- Business Studies Department

In This Race Called "Life"

Photo Source : Resilience_interventions.jpg (1200×630) (teachermagazine.com)

https://boscoanthony.com/social-media-influence/

The New Culture of Fame:

Are Social Media Influencers the Modern Entrepreneurs?

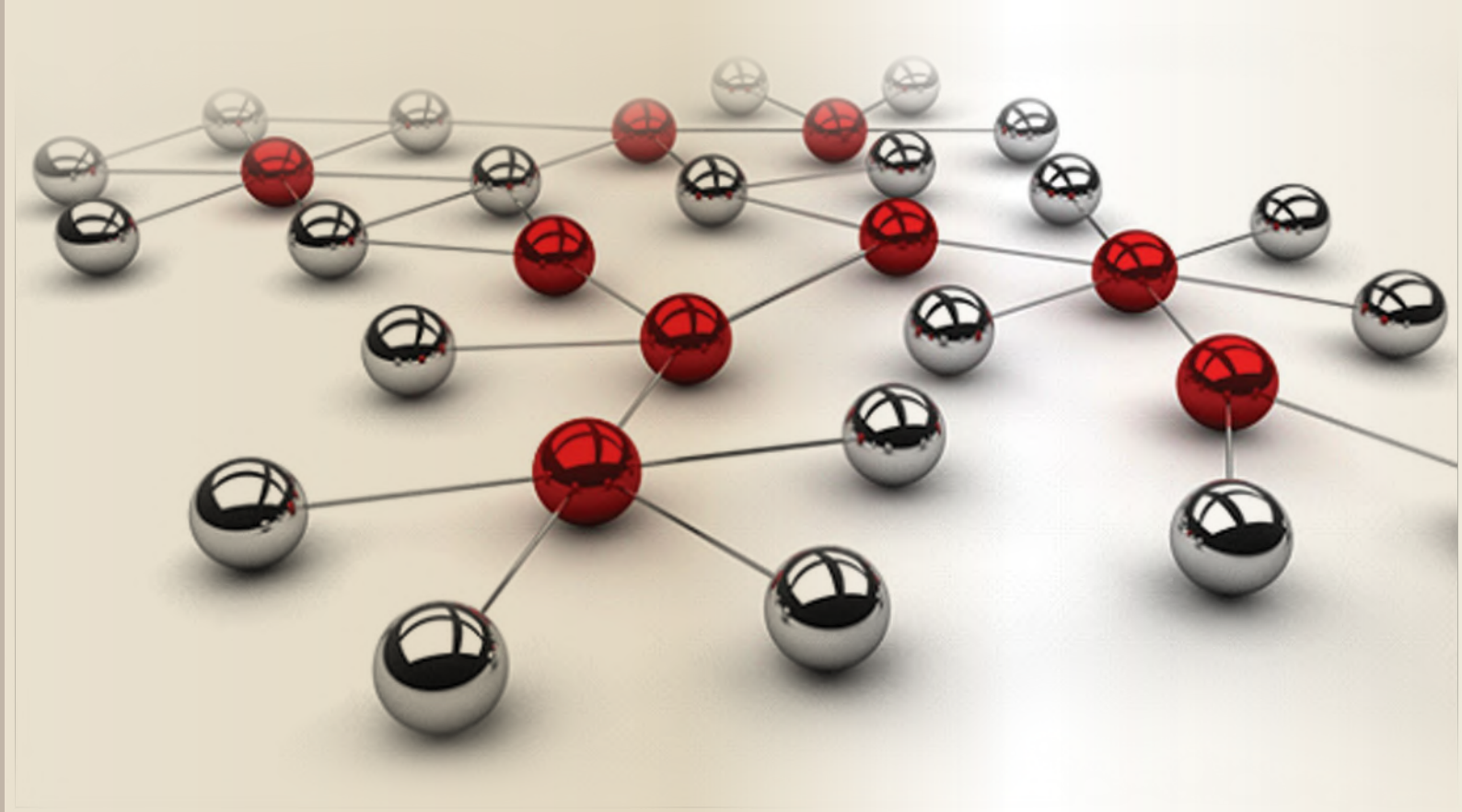
"Not everyone can be famous but everyone can be great because greatness is determined by service."- Martin Luther King Jr.

There was a time when the concept of fame revolved around the unrealistic examples of impeccable humans; usually preserve for intellectuals, prominent figures, change-makers in the society or even fictional characters such as super heroes. We used to call them "influencers" in the true sense of the word- they have the natural abilities to face the public, present their experiences or opinions and in turn, make an impact to others. In some cases, their mere existence can inspire, encourage or sway the others' decision-making.

With the advent of social media, the direction of being famous has changed from looking up to looking at. According to the Global WebIndex, as of January 2022, 58.4% of the world's population uses social media and that the average daily usage is 2 hours and 27 minutes. In 2019, the word "influencer" was officially added to the English Dictionary and is defined as often specifically, a person who is able to generate interest in something by posting about it on social media (Merriam-Webster Dictionary).

The perception of fame and influence has now evolved from a pedestal of dreamlike perfectionism to a relatable, constant presence that assumes connection. Fans or admirers have become followers. We are now in the age of self-proclaimed "influencers", when it doesn't matter what influence this "new breed of professionals" have as long as they have many followers who keep liking and commenting on their posts on social media.

Having more than 1 million followers on a single social media platform will make someone a Mega-Influencer; are usually movie or television stars, athletes, musicians etc. Major product brands approach them and can be paid up to or even more than $ 1 million per post. Influencers with between 10,000 and 50,000 followers, known as Micro-Influencers, can earn between $ 40,000 and $100,000 each year (vox.com). Some of the ways they make money are through sponsored social media posts, selling or reselling products, affiliate marketing and advertising, and creating contents for their vlogs, blogs or podcasts. For some, social media influencing has become a full-time job because they spend hours every day developing contents for their posts to generate views and make money. Anyone, regardless of their age,



educational and professional background, social status, or abilities can become influencers on social media as long as they can convince others to act based on their opinions and recommendations.

Being an influencer could be a profitable living for anyone but if they are not careful enough, their influence on others might do more harm than good. I am of opinion that the guidance of the real "influencers" of the past should not be completely dominated or there would be a number of people interfering with our minds without doing any good to us or the society in general.

Photo Source:
https://earnmoneyabout.com/
https://boscoanthony.com/social-media-influence/

by: Ms. Josie A. del Valle
Lecturer, I.T. Department

by: Dr. Shabnam

Lecturer-Department of Engineering

"...what makes life valuable is that it doesn't last forever,

what makes it precious is that it ends.

I know that now more than ever."

Above lines are from the valedictory speech of Ms. Gwen Stacy, from the movie *The Amazing Spider-man 2: (2014)* and truly describe my feelings towards life. Having survived the double armageddon from economic and health meltdowns, our generation can boast of making history but not without learning our lessons.

Personally speaking, Covid-19 was perhaps the only time I faced fear -fear of death. When I lost my dad to a cardiac surgery in the year 2001-the first quietus I ever witnessed, I didn't know death. But today, I know. And when my mother in India, a senior, suffering from multifarious ailments contracted Covid-19, all hell broke loose quite literally. I was alone here and decided to keep things between Almighty Allah and myself, for help can come only from Him. According to psychology, not sharing grief may take a toll on your health. It did! With my mom's diagnosis as the tipping point, coupled with a series of personal disturbances in recent years, weighed heavily on me. My mom with her post Covid symptoms, comorbidities, and indomitable spirit, headed onto a roller-coaster recovery, as I continued slipping. Never did those around me realize how hard I was trying to make my new normal appear normal. I was fighting an audacious battle within myself, every second. It is said, what doesn't kill you, makes you stronger. And it did! I stand today firmer, healthier, and happier. The true test of strength, faith, and friendships

dazzle in the gloomy days.

Covid -19 made us realize how connected we are and yet we can be so isolated. Starting with one country, a savage virus took no time to do the rounds all over the world; juxtaposed to the fact that many of us couldn't give a dignified funeral to our loved ones. The realizations are many. They say Covid-19 is not the first pandemic. Definitely. It isn't the last, either! The message is loud and clear, if we don't build a robust health-care system, we end up building makeshift crematoriums. If we

Covid-19: To Hell and Back

don't invest in research and innovation, we end up procuring something as basic as oxygen. Yes, that's for the government and civic bodies to ponder over. What's our lesson? Let's be human beings, that's our job. One noteworthy point is that animals reclaimed the planet during early days of the lockdown, reinforcing co-existence as the key. Even the survival of the fittest doesn't talk about competition, but adaptation and evolution. Racism in any direction is inferior to all races. Stop being judgmental and refrain from prejudices. That somebody who deserves your kindness and empathy doesn't always reside on platforms such as WhatsApp, Facebook, and You-Tube. Sometimes, he/she is the one sitting right next to you. Covid-19 has emphasized that our own well-being is patchy without the well-being of those around us.

… And, to never ever leave hope. Remember, the Almighty has our back. This is what my mom has always held onto, and this is her most valuable gift to me. With this, I pass on hope to everyone reading this article. *"No matter how buried it gets or how lost you feel…hold on to the hope and keep it alive",* for us and for everyone around us. "*Let's remind each other and ourselves, who we are and who we are meant to be, …and then, even if we fall short, what better way is there to live?*"

*Text in italics are the excerpts from Amazing Spiderman 2 (2014)

A trader is an individual who participates in the buying and selling of financial assets in any financial market and are inclined to hold their assets for shorter periods of time. If anyone is looking to start trading, probably the most important question to ask is; "Which is the most profitable type of trading for me"? Depending on one's experience, interest, and financial capability, traders can enter different markets such as the STOCK MARKET, FOREX MARKET, or the CRYPTOCURRENCY MARKET. Trading stocks, cryptocurrency and forex needs effective planning, risk management and commitment to be successful. There was a time years ago when the only people able to trade actively in the financial markets were traders who work for financial institutions. However, over the years, developments of online trading platforms have enabled and have made it possible and easier than ever for anyone to attempt to trade.

Gone were the days when the term "trader" is automatically synonymous to a "human trader". Much has changed since the advent of technology such that the old trading methods have been phased out and electronic trading platforms are now surfacing.

Introducing the **"Trading Robot"**, sometimes called **"Automated Trading"** or **"Algorithmic Trading"**. A trading robot is run by fully automated trading software and is able to buy and sell shares in the different markets alongside the human traders. These systems use mathematical algorithms to help them select when to trade and complete the entire trading operation without the need for any human intervention. These "bots" can instantly and at a high-frequency rate carry out user-defined actions (buy, sell, entry, exit) based on pre-defined set rules.

Markets such as the cryptocurrency market is highly volatile, i.e. has the probability for significant upward and downward movements over shorter time periods. A human cannot work continuously unlike robots who can operate for 24 hours a day, seven days a week without falling efficiency. This advantage is highly significant because the robot can take advantage of the chances available throughout several time periods. Another advantage of Trading Robots is that they eliminate emotions throughout the trading process. If there's one essential thing that you need to control while trading, that is emotion. Controlling emotions while trading can be the difference between success and failure. Because they are not subjected to the psychological stresses associated with trading, these "bots" execute actions once the trade rules are met without hesitations or fear. Moreover, "bots" can process information at a high-speed. Time is very crucial in trading because even a fraction of a second can have a significant effect in the result of a trade. These automated systems are able to trade several accounts at one

Trading Robots or Human Trader?

time, can look for trading opportunities across different markets and take actions immediately.

The bottom-line, though very much appealing, in my opinion, automated trading systems should not be considered a substitute for carefully executed trading. These systems still require monitoring because technology failures can happen. Trading experience and knowledge are also imperative before you decide to use automated trading systems.

by: Mr. Allan Salburo

Lecturer- I.T. Department

References: https://cleartax.in/g/terms/trading | https://www.investopedia.com/ | https://www.indiratrade.com/

Masks Unmask Inner Beauty

Society fears and hates the bad guys, the gangsters, the hoodlums, the terrorists. They all hide their faces by wearing face masks. Ordinary people do not wear face masks. Those were the days…

In ancient civilizations, masks represent supernatural beings, spirits, fancy figures, or portraits. Such representations changed when the Manchurian Plague, which spread in northwestern China in 1910, and the Spanish flu pandemic of 1918, the deadliest in history, infected an estimated 500 million people worldwide. During these catastrophes, there were no effective drugs or vaccines, people were ordered to wear masks, schools, theaters, and businesses were closed and bodies piled up in morgues.

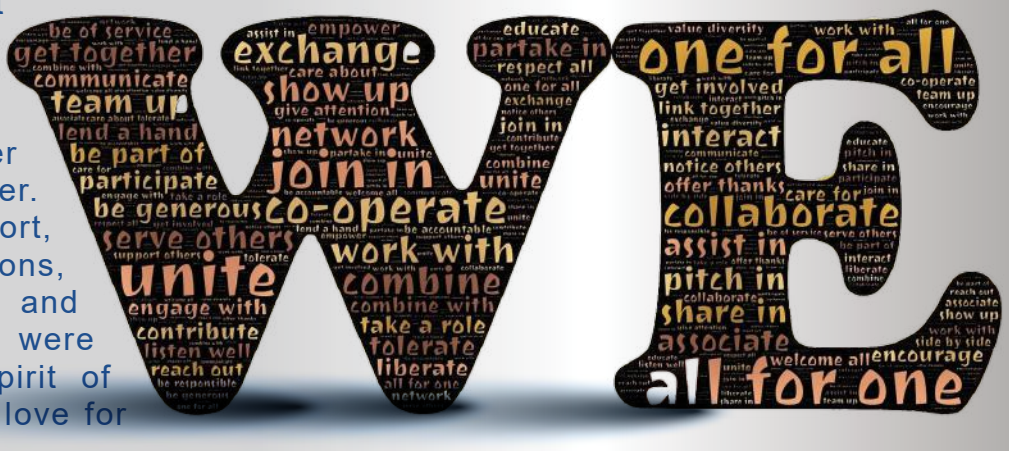
The COVID-19 pandemic is one of the most unpredictable and dangerous challenges this world has faced in this lifetime which has presented extreme health and economic consequences. Similarly, schools and businesses were closed, we were ordered to wear masks, and to distance ourselves from others including our own family. We have witnessed family members, friends and relatives who were left sick or die alone in hospitals, buried sans their loved ones. These sights of helplessness call for solidarity in dealing with the “unseen enemy”, the virus.

Strangers met strangers via digital communication tools had extended help to each other and to one another. Words of comfort, pledges for donations, financial assistance and other forms of help were outpouring. The spirit of unity, kindness, and love for one another is a manifestation that man by nature is good.

Since the beginning of the pandemic to this day and maybe till the coming years to come, wearing a face mask is the new normal. Face masks have become the symbol of the pandemic era, the strange times we now live in. Wearing a mask during the pandemic says, ‘I care about you’. It is a badge of honor as you do your role of protecting and caring for others in times of need. Keeping your mask is an opportunity to replace fear with an expression of strength as a community. It is a tool for society and people to move forward and live safer. Masking is considered a social responsibility to do one’s part in controlling the pandemic as “feelings and emotions are revealed through the eyes”.

by: Ms Ofelia Hassan

Lecturer-Engineering Department



A Reflection on the Impact of COVID 19 on the Educational System

by

Ms. Fazilathunissa

Lecturer, Business Studies Department

The COVID-19 pandemic brought havoc to the entire education system worldwide. The online education system brought about a major turning point in the students' life. The university management ensured that students would not suffer from any academic loss so it enabled all possible mechanisms to get students connected online. Having safety and security of the students their utmost priority, the management took the initiatives to keep distance learning on pace.

Many ups and downs were faced during those periods. It was a very challenging journey on the part of management, staff and students yet the drive to give education a priority never stopped. The online platform helped every single student to catch up on their classes at their own time in case they missed the online classes, since video recordings were available. The need for effective writing and speaking skills became too evident. The online exams made some students lazy and lethargic as they were tempted to simply open their notes and their memory power simply shut down. Moreover, many families were drastically affected due to ill health, loss of employment and miserable loss of a loved one which has psychologically affected the minds of affected students.

Slowly, things are getting back to normal but this would take some time for students to adjust as they need to fill the gap of mingling with people and mixing with friends and classmates. Hence, this is a gradual process and the university is trying its best to recover and make good after the losses suffered due to the crucial situation rendered by the pandemic. Despite these challenges, the management and staff have done their best to deliver quality education, which in itself is a great achievement.

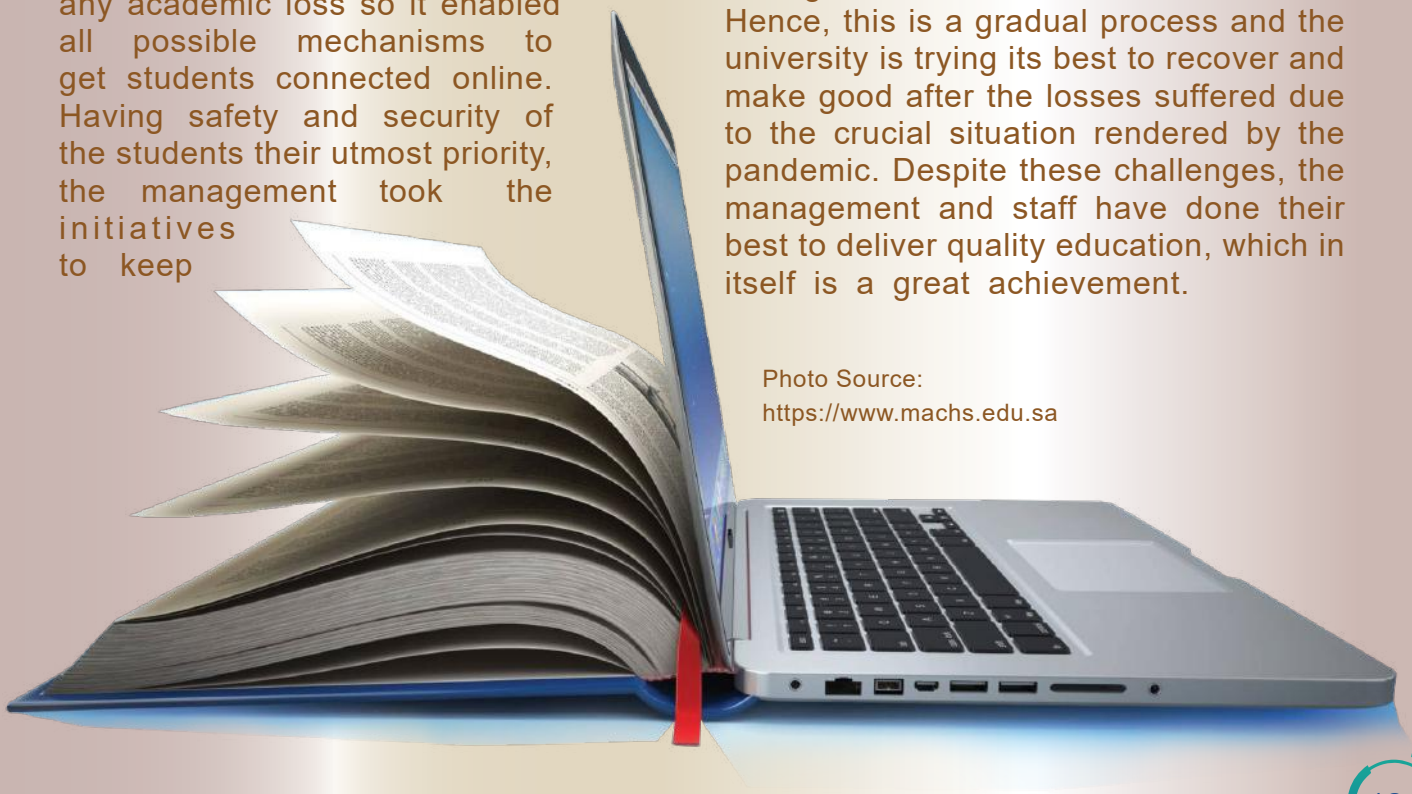


Photo Source:
https://www.machs.edu.sa

A Blatant Gift

God's gift…this beautiful nature

Precious treasure for mankind

Not just an everyday measure

To hunt for your own pleasure.

Nature has a creative elegance, not just

Green scenery with mixture of textures,

Is a living art which when

Scented is sweet and pleasure.

Don't misunderstand this astounding innovation

To make your life full relaxation.

To save your future, save nature,

To save nature sacrifice your hideous nature.

Every now and then there is a catastrophe,

And according to Newton's third law,

Nature has raised its fury beyond the bars.

Why? Man has forced it to do so.

Nature is a mixture of boundless enigma

Though Newton, Einstein and others solved

There exists much more incomprehensible stuff

Which would take an eon to get solved?

Every knowledge to man was imparted by nature,

And it seems so ridiculous

That we Homosapiens have been ungrateful to

Our own teachers for the boon they gave us.

Thanks to God for such a stupendous gift

On behalf of every HUMAN let us vow

This great legacy will aptly be used still

Our breath exists on this EARTH.

by

Ms Rachel Joseph

Lecturer- English Language Center

Be a Human

by

Dr. Rathna Chellappa

Lecturer- Business Studies Department

I found no human
when I walked...
Everyone was busy with their walk, ride and driving...
Their eyes were closed
I suppose...
Otherwise,
none could have crossed
the age old
with shrank skin
lying on trash
seeming to count her days...
My eyes fluttered...
legs refused
to move further...
I didn't know her past
She might have been
great in her life or
she might have
suffered a lot in her life...
But, something had
turned her life
upside down and
thrown her into the street
like dry leaf...
Stories studied and heard
made me think.
I realized,
I am a human being....
Now the fellow human
is under care...
We do not know the future.
Be a human

Beauty Obsession

by

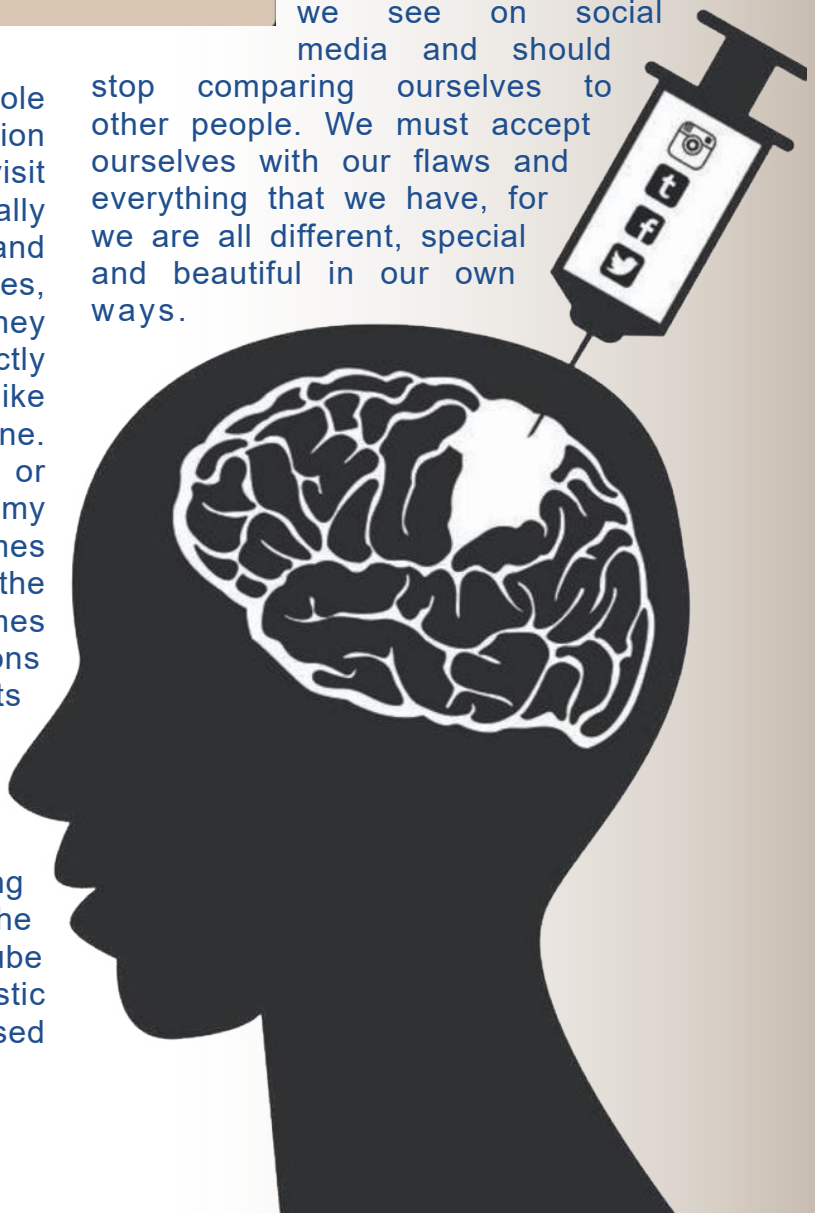
Ms. Reem Nasser Bakhit Qaitoon

Advanced Diploma Student- Human Resources Management

It is important for a person to take care of his or her physical appearance and be presentable. However, today, the interest in beauty or body image has become overstated or exaggerated. Many people have become dissatisfied or unhappy about their overall appearance to the extent that some would even consider undergoing reconstructive/plastic surgeries regardless of their age.

In my opinion, social media plays a big role in catalyzing appearance-dissatisfaction for both men and women. When I visit social networking sites, especially Instagram, I see photos of men and women with athletic and perfect bodies, perfect skin and perfect complexion. They all have beautiful, neat hair and perfectly put make-up that makes them look like they are posing for a fashion magazine. Repeatedly seeing these photos or being over-exposed to these images, my subconscious mind sometimes becomes convinced that this is normal and the accepted standard of beauty. I sometimes forget that there are many modifications to these images and that many defects have been hidden in them to appear in perfect form. I sometimes forget that most social media users use different tools such as Photoshop and filters to edit their photos before posting them on social media. Moreover, the celebrities on Instagram and YouTube who undergo reconstructive/plastic surgeries to "correct" the supposed imperfections on their bodies and faces promote these procedures as if we have to do the same. I believe that social media is now shaping our concept of beauty and it gives us unrealistic expectations of how we should look. This can lead to loss of self-confidence or make us feel that we are less than the others. It is important to use social media in a positive way.

In conclusion, I do not object to the idea of people wanting to look better to feel better but it should not be the center of our lives. I believe that we must love, respect, and take care of ourselves as we are. I am also not against applying make-up but we should not consider it as an essential part of us. We should not be affected by everything we see on social media and should stop comparing ourselves to other people. We must accept ourselves with our flaws and everything that we have, for we are all different, special and beautiful in our own ways.



The Importance of Positivity in Society

Wherever we go, we find society in all its different forms with its various effects on people. Perhaps a person may be impacted by his society negatively or positively.

The negative impact begins from a community that is not supportive of its people, especially the young generation. A young man with different talents and skills may not find moral or material support from the community because the people around him think inside the box, they do nothing else but pull him back down. When this young man becomes aimless, he will find himself in a bad situation and there are those who simply accept it. In our society there are a lot of young people who couldn't show their talents and skills because society did not give them the opportunity.

A positively-driven society supports young people in developing their skills and talents to help them become better. We find that this society provides them all the support they need. They are provided with the right courses and are given the chance to excel in competitions in various social, cultural and sports, like swimming, soccer, horse riding and other activities. Society gives the young man the opportunity to build himself and allows him to grow further. When you meet one of these young people, you find that he displays the spirit of determination and ambition to reach to the top.

Some young people who do not find support in their local society opt to travel and live abroad. It is such a loss of bright ideas and talents from these young people. Perhaps, this young man will find his success abroad because they may give him opportunities for scholarships that serve well to this ambitious young man.

Here comes the role of educational institutions, which must provide all possible means to develop and highlight the skills and talents of these young people. Through this article, I hope to shed light on the importance of positivity and a supportive society especially to the youth.

by

Mr Ali Mohammed Al Mashiki

Diploma Student- Engineering Department

Photo Source:

https://www.freepressjournal.in/spirituality/guiding-light-importance-of-positivity

My Journey as a Dean's Lister

The last two years have been difficult and challenging not only for me but for everyone in the world because of the Coronavirus pandemic. However, the challenges I have faced did not stop me from reaching my goal to be the best version of myself. My targets were, despite the changes which were implemented in the College, to obtain high marks in all my courses and to be included in the Dean's Honor List. The obstacles and the complications I needed to overcome were difficult since I had to change my routines three times. I studied face to face in my first year, and then switched to online learning in my second year, and back to face to face classes in Advanced Diploma. These changes tested my ability to switch my routines and study habits both at home and on-campus.

From experience, I can say that success begins with a dream and believing that there can be no achievement without a battle, and that there can be no success without sacrifice. Anyone who wishes to learn must be willing to undergo pain. It is not an easy road to success. As an ambitious individual, I have an immense desire to succeed and the ingredients that fueled it further are determination, patience, and persistence.

I have undertaken (and still undertaking) the following steps to achieve my targets:

1. Learning and continuously improving my English was the first step. As we all know, our native tongue is Arabic so I exerted extra efforts and allotted time to practice using the English language. My aim is to continuously improve my ability to communicate and understand the language so I read a lot of English books, listen to English music, and repeatedly watch my favorite English films.

2. Whenever the teacher gives lectures, I take notes in both Arabic and English. This will ensure that I do not forget critical things that my teachers addressed and I can say that my best practice is to review my notes immediately after the class. When I started doing this, I have seen a significant increase in my retention rate.

3. I listen attentively and actively to the teacher which I find beneficial in my learning because I always pay attention to how the teacher pronounces the words correctly and I practice talking to my teacher in a conversational manner which speeds up my learning.

4. If I don't understand a word, I search for the meaning of the word or translate it from English to Arabic and vice versa. During exams, it is very important that I understand the questions because I've noticed that if I don't understand even a single word, it affects my answers.

I didn't get first place in the Dean's Honor List at the beginning. But, after I set a goal and worked on it, I was able to do so. It's not easy and simple to be included in the Dean's Honor List and consistently be in it. It's something to be proud of especially when managing school, family, and various other commitments at the same time. I'm currently on Bachelor's Level in Marketing and I still have a lot to learn. I strive to work hard to achieve my goal of finishing a Bachelor's Degree in Marketing and eventually becoming a Marketing Lecturer, someday. Nothing is impossible if you set your mind on it.

by

Ms. Abarar Ghanim Thiban Alyafai

Bachelor Student- Marketing

Facing Failures

by

Ms. Raya Ali Said Al-Amri

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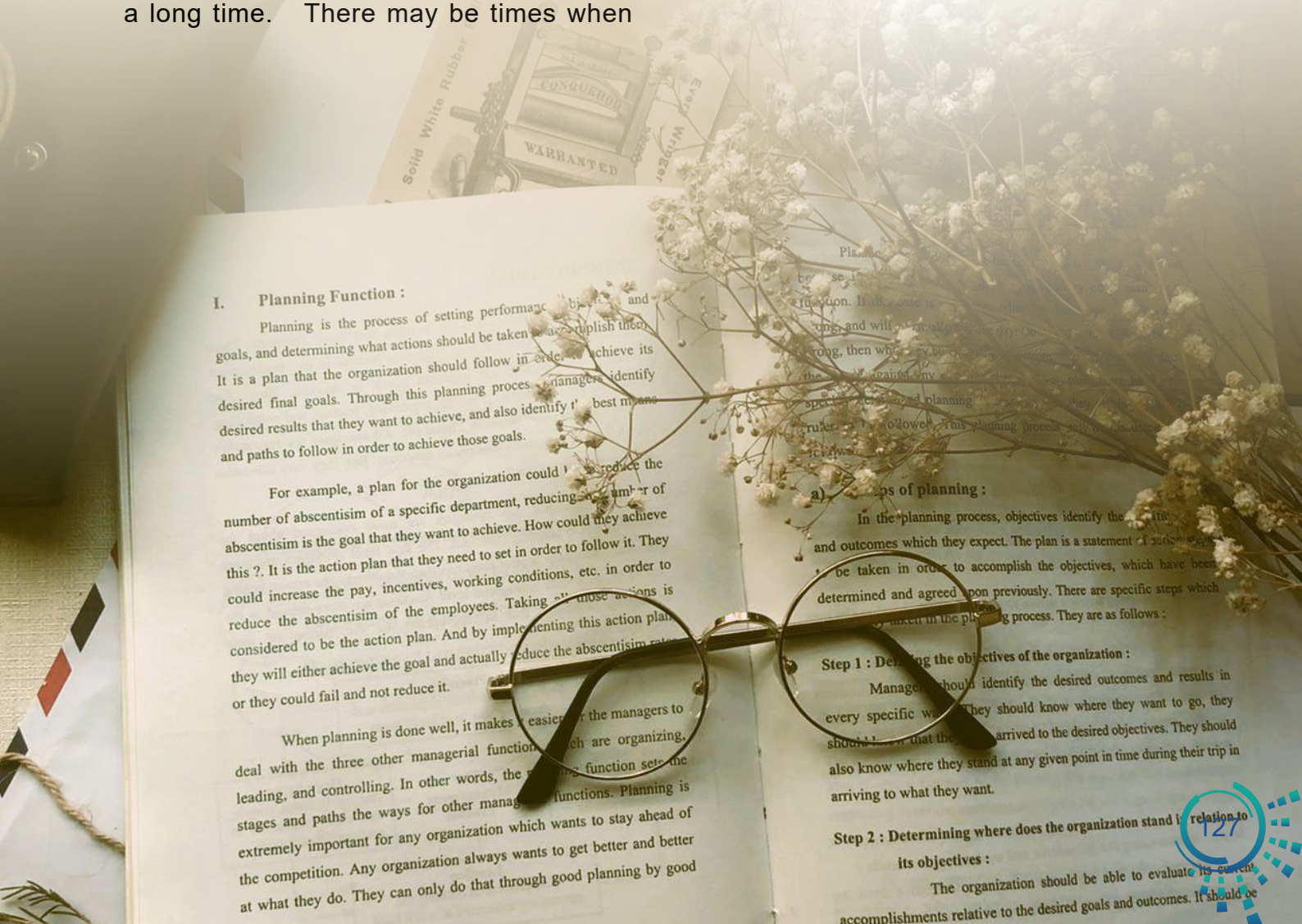
“Failure is the spice that gives success its distinctive flavor.” - Truman Capote

“Life has broken me many times. I saw things I didn’t want to see. I felt sad and experienced failures. But the one thing that is always certain is that I got up.”- Nelson Mandela

When you face disappointments or failures, whether they’re related to your work, studies, family or anything else, don’t stop there. Try to get up and overcome them. We face problems of varying degrees every day. There may be times when you feel a desire not to get up in the morning and not to carry on with your life as a result of failing at something you’ve been struggling with for a long time. There may be times when you feel that you cannot deal with your feelings and sadness anymore because of failure. Don’t stop there and try again. Humans were created to fight and learn from past mistakes. Never be afraid of failure. Failure is a new direction and a chance or opportunity to try something new.

Strong people know that they have to face these problems and find solutions to resolve them. Most importantly, strong people know that these problems are temporary and should not stop them from continuing with their plans.

In conclusion, failure is when you give in to it and, when you stay where you fell. In order to succeed, you must do whatever is required of you and leave everything else to God.



CONNECT

Communicate and maximize the power of words, use it to be understood and tounderstand

Optimize your full potential, develop your skills, hone your talents and commit to lend a hand

Navigate unexplored oceans, broaden your horizons, widen your networks, meet new friends

Nurture good spirit, nourish your soul, cultivate compassion and learn to make amends

Empower others around you, encourage them to excel and lead them the best way you can

Collaborate with people, share ideas, strengthen relationships and support your fellow men

Transcend expectations, surpass your limits, never give up and always try to rise again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