Welcome to the new Academic Year! The department has a reflective operational activities based on the most-recent academic year. Its areas for improvements have been catalyzing the department to achieve progressively. Like any other departments, the IT Department takes an active role in fulfilling its requirements for the Institutional Standards Assessment Application (ISAA) of the College.

Gearing to become a well-rounded department, the department aligns all its activities to such operational standards and be adequately addressed. This Volume 3 of the IT Newsletter serves as a reservoir of information throughout the academic year which can document all such activities. For instance, this month of September, a number of activities had already been conducted, such as: Department meeting with awarding, industrial activities, research activities, and recognition of a number of PhD degree holders, staff development awareness sessions, and many others.

May I take this opportunity to invite everyone to become a contributor for the rest of the other issues of our IT Newsletter!

http://www.hct.edu.om/academic-departments/it-department

Dr. Huda Al-Shuaily
Head of IT Department
OMAN IR 4.0

The Oman IR4.0 Summit was organized by the Department of Information Technology, Higher College of Technology in collaboration with the Persontyle UK, STFS, Oman Blockchain Club, and DSME Foundation, last July 8, 2018.

The Oman IR4.0 Summit is a platform that brings together the region’s top leaders, business decision makers and technology innovators for a strategic discussion on how to effectively harness the power of emerging technologies to drive sustainable growth of the economy. Among the list of Oman IR4.0 Summit speakers were global technology experts, senior business leaders, renowned experts, distinguished officials and government representatives.

The summit covered the following topics: Industrial Revolution 4.0 and Smart Cities of Future, Transforming Industries using Data, Artificial Intelligence, IoT and Digital Twins, Blockchain and Distributed Ledger Technologies transforming Governments, Cities and Industries, Applications, Examples and Best Practices of Artificial Intelligence, the brain of IR4.0, and Data Intelligence for Digital Transformation.

The event was covered by OmanTv General.***

CLOUD COMPUTING IN COURSE PROJECT USING AZURE

The scope of Azure in Application Services is to do the experiments and deploy student academic projects and database driven web/mobile development. The process through which a website, web app or mobile app are created is known as web development. It includes various tasks which are web design, content creation, programming, client side scripting, server side scripting, network security and web hosting. Azure platform will allow students and lecturers as ‘developers’ to develop and manage their apps without the complexity of building and maintaining the infrastructure. This concept is replacing the traditional server hosting and facilitating the virtual hosting as a self-service system. Here, the developers (students/lecturers) can provision (create, configure and work) their own web servers, database servers and application servers. This approach will help the IT students to become as independent developers and they will be writing codes online and using online databases.

Above figure shows how to deploy a web based database driven student project into Azure. This approach will allow any developers to develop and host their applications and it could be accessible through the browser. In the technical aspect, PHP developers can develop their PHP Apps through the WAMP Server and later on they can deploy it via Azure Database for MySQL. The .NET developers can migrate their .NET apps and it could be available using URL.***
HCT STUDENTS SHINE OUT IN UPGRADE

UpGrade is a program that aims to transform Graduation Projects into successful ICT startups.

Several students from different Universities in the Sultanate participated in the challenge for a chance to win. Approximately 68 teams registered in the competition. The students underwent a series of challenges categorized into three (3) rounds. Eight (8) teams reached the last stage of the competition. Two (2) teams among the 8 teams were students from the Higher College of Technology under Information Technology Department.

The team from Information Systems Specialization showcased their project entitled “Online Slaughterhouse System” by Muummar Al-Harthi and Mabrook Al-Khusaibi and from Software Engineering Specialization entitled “Timetable Generation” by Ahmed Muneer Al Masruri.

The awarding ceremony for the winners was held on 5th of September 2018 at Sundus Rotana Hotel around 6:30pm.

Kudos to your braveness and creativeness! ***

BLOCKCHAIN TRAINING PROGRAM

The Oman Blockchain Club, in collaboration with IT Department of Higher College of Technology, organized a series of training programs in Sultan Qaboos University and in Dhofar University during the summer.

The First Venue: Sultan Qaboos University
The Blockchain Training program was conducted on 29th of July till 2nd of August, 2018. The said training covered two (2) Blockchain specializations: “Blockchain Coding” and “Blockchain Security”.

The training program aimed to broaden students’ knowledge in Blockchain and to develop their skills and competencies. Mr. Muhammad Idrees from Database specialization and Ms. Shaima Al Amri, a Lecturer from Internet and E-Security specialization, were the resource persons.

Mr. Mohammed Al Ajmi and Dr. Vinu Sherimon, both lecturers from Database Specialization, and several HCT students attended the workshop.

The Second Venue: Dhofar University:
An intermediate level workshop on Blockchain was conducted on 5th of August to 9th of August, 2018. Mr. Talib Al Mahruqi, Mohammed Al Ajmi and Ms. Shaïma Al Amri along with few HCT graduates attended the workshop.

Overall, the event was very effective and fruitful. ***
PROPOSED PROTOTYPE FOR AL MASARRA HOSPITAL

Two (2) of our students from Software Engineering Specialization proposed to create a system for Al Masarra Hospital last (Summer Semester) July, 2018. The project team is under the supervision of Ms. Areej Almajed.

Ahmed Al Mukhani and Hajer Al Sarji are now working to turn the proposed prototype entitled “Smart Geriatric Psychiatry Outpatients Service Management System for Al Masarra Hospital” into a functional system. The system aims to use the smart technology that will aid the patients, doctors, nurses, social workers and other healthcare providers in managing the community services of geriatric patients in the Sultanate of Oman. The proposed system will provide remote care management to patients receiving healthcare in their houses, especially patients that are unfortunately either terminally ill or bed ridden and with either social or financial challenges.

The main idea of the proposed application is to connect patients virtually in their houses through a central database kept in the cloud with all other stakeholders. The doctors, healthcare providers and caretakers will be continuously monitoring the patient’s medications and daily activities and will be preparing to take actions through the system whenever there are cases of medication misuse or emergency situation. The interfaces will be built using smart devices and artificial intelligence applications.

Al Masarra Hospital is very much delighted to embrace their brilliant ideas as it shows tremendous benefits on the patients and healthcare providers.***

RISK, HEALTH AND SAFETY STAFF ORIENTATION

The College RHS Committee conducted an orientation for the IT Staff last September 5, 2018 in Multi-Purpose Hall (MPH) at the Higher College of Technology. According to the RHS members, it is their responsibility to promote the objectives of the committee i.e. “To increase the awareness of staff on risk, health and safety issues/incidents”. They also focused on the policies, incident/accident/hazard reporting, risk assessment and management, importance of staff and student headcounts, emergency evacuation, and overall housekeeping.***

IT 1st ACADEMIC MEETING, AY 2018-2019

As a usual practice of the department to start the academic year, the IT Department conducted its 1st Staff General Meeting last September 5, 2018 in the Multi-Purpose Hall (MPH).

With pleasant words, Dr. Huda Salim Al-Shuailey, the HoD-IT, welcomed the staff with emphasis on how productive the most recent academic year was, so the same sense of dedication should be maintained this academic year 2018-2019. Mr. Talib Al-Mahruqi, the HoS-Multimedia, also welcomed the staff with some helpful notes and reminders. Ms. Jeba Roseline, the IT Registrar, got the chance to spill awareness about Advising and Registration among the academic advisors. The new IT Program (version 3) was also emphasized throughout her talk.

An awarding ceremony was one of the highlights of the said meeting where the members and coordinators of the various department committees were recognized. Sumptuous snacks were also served to the staff towards the end of the meeting.***

iLEARNING ORACLE ACADEMY AWARENESS SESSION

The database specialization group in the department initiated and organized an awareness session on i-Learning of Oracle Academy last September 13, 2018, facilitated by Ms. Ronette Rabanal.
The session introduced the fifteen (15) Database and Software Engineering lecturers to the i-learning platform that enables them to access the Virtual Learning Environment (VLE).

The VLE broadly demonstrated its features such as curriculum materials, student progress tracking and report mechanisms in terms of courses and assessments like quizzes. It also permits teachers to have access to a various set of instructor materials for classroom use including curriculum teaching materials, exercises and solutions, projects and solutions, and delivery guides. Moreover, teachers have the ability to create student accounts and provide student access to student curriculum materials. Students who have completed the courses can download their transcripts, which show their assessment scores. VLE has been found a valuable tool as it offers dynamic opportunities to learners.***

RETROSPECTIVE EVENTS...
Mr. Mohammed Mushtaq Ahmed, Lecturer from Software Engineering, had conducted workshops on two separate areas last 17th July 2018 during the vacation in Futony University, Thailand.

The workshops are entitled as follows:

Workshop 1: Data structures in a Nutshell
The first workshop was a 4-hour session that covered the complete course on “Data Structures and Algorithms” which mainly focused on the concepts and techniques.

The workshop focused on common data structures problems and was attended by 20 students of the said university.

Workshop 2: Web Design Basics
The workshop targeted students who are currently in their final year working on their projects relevant to web-based technologies. The facilitator primarily discussed Cascading Style Sheets (CSS) among four (4) students.

The Assistant Dean Mr. Anuwat Worlee, HoD Miss Nurulhusna Abdullahi of IT Department and the main facilitator of the workshop Mr. Abdunfatah Masamae and all other staff members, as well as the students, displayed their remarkable support and generous help in all necessary arrangements on a very short notice. They have also shown interest to have a staff exchange program with the Higher College of Technology.***

INTERNATIONAL CONFERENCE IN ACTION
Two (2) lecturers from IS Specialization participated in a series of conferences in the United Kingdom during the staff annual vacation. The conferences provided birds-eye view and opportunity for institutes, research centers, engineers, scientists and industrial companies to share their latest investigations, researches, developments and ideas in the area of Innovative Computing Technology. The attendees on the said event were academic and industrial researchers from various companies and universities.
Ms. Sunitha Cheriyan and Ms. Shaniba, presented a paper entitled “Empirical Analysis on the Efficiency of Clustering Algorithms Based on the Significance of Cluster Size” during the Eighth International Conference on Innovative Computing Technology 2018 held in the University of Bedfordshire, UK last August 15, 2018. The said paper was co-authored by Dr. Susan Teresa. On the following day, August 16, 2018, Ms. Sunitha Cheriyan also presented another paper entitled “Intelligent Sales Prediction Using Machine Learning Techniques” at the IEEE International Conference on Computing, Electronics & Communications Engineering 2018 at the University of Essex, Southend, UK. The said paper was co-authored by Shaniba Ibrahim, Dr. Saju Mohanan, and Dr. Susan Teresa. According to Ms. Sunitha, the event exposed and helped her to explore the spectrum of research in various fields of Computer Science and IT.

In the meeting, lecturers were encouraged to utilize the e-Learning portal and the usage will be monitored periodically by their Head of Section. The Head of Section stressed that the e-Learning portal is a tool for teaching and will always be part of staff appraisal.

At the end of the meeting, all math staff members were motivated, enthusiastic and dynamically driven.

**UPCOMING EVENTS...**

Huawei, a leading global Information and Communication Technology (ICT) solution provider, opens its door to colleges and universities students in the Middle East to participate in “Huawei ICT Competition Middle East 2018-2019.” The competition aims to develop ICT industry talent and a strong ecosystem.

The schedule and stages are as follows:
- **Registration:** May – September, 2018
- **Preliminary:** September to October, 2018
- **National Final:** 1st November – 10th November, 2018
- **Regional Final:** 25th November – 30th November, 2018

**MATH SECTION MEETING**

Dr. Huda Al Shuaily (HoD) along with Dr. Saad Ahmed (HoS-Math) conducted a meeting last 6th of September, 2018. The HoD welcomed all the math staff members for the Academic Year 2018-2019. She congratulated those lecturers who have served as “heroes” in the math section and in the department. She also wished everyone to perform the same in this academic year.
The IT Department aims to involve a numerous number of students in the competition. Students are encouraged to register in this competition. ***

“Let’s empower the Youth, the Leaders of Tomorrow!”

HCT’s CISCO BAGGED AN AWARD

IT Department is proud to announce that HCT-CISCO bagged an award for its outstanding support for Networking Academy instructors and students and contribution to inspire a generation of global problem solvers.

The awarding will be held on 16th of October, 2018 in Morroco. Kudos to all Lecturers and students for such great achievement! ***

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OMAN IR 4.0 INAUGURAL MEET UP

IT Department is delighted to announce that Oman IR 4.0 inaugural meetup will be on 9th October, which will focus on understanding Artificial Intelligence technologies and examining the applications and impact of AI on digital industrial transformation.

The Meetup is organized by the Department of Information Technology, Higher College of Technology, in collaboration with the Persontyle UK.***

WELCOMING NEWLY JOINED AND RE-JOINED STAFF

The Department is privileged to welcome five (5) IT Lecturers, namely: Dr. Maryam Ali Said Al Hinai (Information Systems), Dr. Warda Mohamed Abdullah Al-Hooqani (Database), Dr. Aisha Nasser Al Salmi (Database), Dr. Noora Yahya Al Hoqani (Database) and Dr. Haifa Mohammed Al Nasseri (Networking). Another staff, Mr. Tushar Pradip Atole also joined the Math Section.***

Dr. Noora Yahya Al Hoqani
Dr. Maryam Ali Said Al Hinai
Dr. Warda Al-Hooqani
Dr. Haifa Al Nasseri
Dr. Aisha Al Salmi
NEW DOCTORATE DEGREE HOLDERS

Dr. Giri Ramadoss, a lecturer from Math section, successfully completed the degree Doctor of Philosophy in Mathematics in May 2018 at Prist University, India.

Dr. Arun Rajesh, an Internet and E-Security lecturer and currently the Physical Resource Coordinator of the Department, finished the degree Doctor of Philosophy in Computer Science and Engineering at Manonmaniam Sundaranar University, India last July 2018.

Dr. Samuel Durai, a lecturer from Software Engineering and a Human Resource Coordinator in the department completed the degree, Doctor of Philosophy in Computer Science at Bharathidasan University, India in September, 2018.

Dr. Susan George is with the IT Department for thirteen years (13) and completed her Doctorate degree Doctor of Philosophy in Computer Science at Cochin University of Science and Technology, India last August 2018.

An amazing accolade for such an academic achievement. In total, there are now forty-nine staff (49) or 38% of the total population who are doctorate degree holders in the IT department.***

ALUMNI CORNER

I am Kareem Rashid Al-Hudaifi who graduated with a Bachelor’s degree in Information Systems last 2013. My specialization really helped me a lot to accumulate the knowledge and skills which would help me to reach my goals. Since then, I really had the passion in venturing into my own business, having me as the manager. No one is born as a manager outright; rather, it has to be learned since it is both an art and a skill. I am so glad that I took Information Systems which led my career path into running my own business. I am managing my own business which I have expanded into 3 to 4 branches.

To the students, I started from where you are. Likewise, I became a student, too. I strived to reach my goals in life through the power of education. There are a lot of things to be learned that would benefit a life-long journey. While a student, always focus on your studies as this will lead you to the way of your dreams. Be smart, work hard, and believe in yourself!

Throughout your journey, adapt yourselves to the fast-changing environment. Experience should go along with the rapid technology revolution. The way we learn and the way we experience life would have a radical change, too. This just shows that while young, take all the possibilities to learn as much as you can.

There is a clear line of opportunities at the end of the tunnel of hardships and difficulties. Believe in yourself, learn to be self-reliant, and use what you have learned to build your future! ***

“Believe in yourself and work hard to build your own future…”

- Kareem

Mr. Kareem Rashid Al-Hudaifi
Entrepreneur, Alumnus 2013