Department of Architecture organized a KHDA (Knowledge and Human Development Authority, Dubai) approved certificate course for learning the Autodesk 3DS Max software. The first session took place on 28th September 2017 and continued till 14th December 2017 for 40 hours. (One session per week). This course will add value to the B.Arch. program, particularly for 3D Architectural visualization. It was conducted for the 3rd and 4th year students of Department of Architecture along with one faculty.
The Department of Civil Aviation, Ras Al Khaimah is responsible for the safe operation and regulation of the air transport system in Ras Al Khaimah. DCA Innovation competition is a platform to collect innovative ideas from university and college students to enhance the civil aviation services. The VII semester students of Department of Architecture participated in the category – Customer/Passenger Best Experience. The projects sent for the competition have been listed below.

GROUP-I

The objective was to achieve maximum comfort and security for the passenger while he or she is at the airport while travelling; hence a design solution was achieved. A convertible seating (for storage and also for resting) provides the best solution to the most common problems at the airport; absence of a semi-private/ private rest area. Also, the use of lightweight materials (chip-board and wood) makes it easier for the individual to move the seating around the space.

GROUP-II

Sleeping in airports when the flight is delayed or when one has to catch a connecting flight has been a very uncomfortable situation. Even though many solutions have come up, like sleeping pods etc. These can be quite expensive and might require huge space to accommodate the large number of travelers in the airport. This design is economical and requires comparatively less space since it is built vertically. Larger number of people can be accommodated in these rooms. The same module can be repeated as per requirement.
Department of Electrical & Electronics Engineering

Workshop on PLC and Automation

A workshop was organized by the Department of Electrical and Electronics Engineering at the Proliance Automation and Training, Al Qusais where hands-on training was delivered to the final year EEE students. Faculties Ms. Chetna Nagpal and Ms. Nisha Mary Mathew from the department accompanied the students for the workshop. The workshop turned out to be an informative and fruitful session, where the students were shown various types of PLC’s of Siemens, ABB, Schneider Electric etc. The students were also able to understand as to how exactly automation was taking place at the industry level.

Projects

The final year EEE students have presented a few very good and interesting projects in the Electrical field namely automatic phase selector, Arduino based LPG safety system, a cloud based system for the identification of vacant parking, IOT based home automation system, coin based mobile charger. All the projects were innovative and utilized smart ideas.
Workshop organized by Electrical and Electronics Department

A workshop was organized by the Department of Electrical and Electronics Engineering for the school students on Circuits and Soldering practice. The students were introduced to the current techniques, designs and applications used in electronic circuits. The students in groups soldered individual circuits on the PCB.

Shortlisted Projects for competitions to be held in UAE

A project named “Smart Park-A cloud based system for identification of vacant parking” done by final year EEE students (Shubam Jain and Yash Gupta) has been shortlisted for 6th United Arab Emirates Undergraduate Research Competition 2018.

A project named “IOT Based Home Automation System over the Cloud” has been shortlisted for Future Generation Middle East Electricity Awards, 2018 done by final year EEE students (Shahzeb, Ananya and Ishraq).

Paper Publications by Faculty Members

A journal paper named “Adaptive Neuro fuzzy inference System Technique on Polysomnographs for the detection of stressful conditions” has been published by Chetna Nagpal and Dr. P. K. Upadhyay in IETE Journal of Research, (SCI indexed) Feb 2018.

Abstract - A method for computerized detection of heat stress is presented in this paper and tested on prerecorded data from a range of subjects. The physiological changes that happen in the subjects are incorporated as fuzzy logic to distinguish the stress level of the subjects as chronic or acute stress. The sleep stage classification is done initially with the help of pre-established rules governed by American Academy of Sleep Medicine. After the sleep stage classification is done, data are further classified as chronic or acute stress with respect to their controlled states. The proposed algorithm employs adaptive neuro-fuzzy inference system and Mamdani fuzzy model and achieves an average classification accuracy of 89% in detecting stress levels.

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Students of B.Com-IV & B.Com-II accompanied by management faculties were part of a preliminary talk on waste recycling initiative by RAK waste management agency. The talk mainly focused on benefits of recycling and aimed at reducing the number of landfills by 2021. This initiative aims at source segregation of waste into recyclable and non-recyclable materials which starts at our own homes. To understand resident’s perspective on recycling, data will be collected at different locations in R.A.K. which will be undertaken by our management students on 12th and 19th of March, 2018.

New Faculty Members join Management Department, BIT RAK

Gopal Muralidharan is a qualified Professional Management Accountant from ICMAI, holds a Masters Degree in Commerce from the University of Madras. Currently Assistant Professor in the Department of Management at BIT, RAK. He has worked with the Ministry of Higher Education (MoHE), Oman. Prior to joining the MoHE, he had worked as lecturer in Auditing and Accounting at Muscat College (affiliated with the University of Stirling, Scotland). Mr. Muralidharan has also worked as a Training Manager cum lecturer for the UK-based ACCA and ABE Professional courses in Kenya, Tanzania, and in Oman for over 10 years. As a Consultant and Financial Analyst member, he has also served the World Bank mission on “India – Public Expenditure review – Transport” in 1992. Since 2009, Prof. Gopal Muralidharan is an approved External Reviewer with the Oman Academic Accreditation Authority and has served during 2010 as a Member on the Quality Audit Panel of the National Commission for Academic Accreditation and Assessments (NCAAA), Riyadh, Saudi Arabia to Audit the ‘MBA Accounting Program’ at: Al-Imam Muhammad Ibn Saud Islamic University.
Ms. Nidhi Chaturvedi has an excellent and proven track record of more than 14 years in the field of Business Management Education in various organizations of repute like Emirates Aviation University, Dubai; IMS Ghaziabad; Banasthali Vidyapeeth to name a few. She holds a Master’s degree in Business Administration with specialization in Marketing Management and Information Technology. She is currently pursuing Ph.D. in Consumer Buying Behaviour.

Mr. Areeb is an ACCA affiliate and BSc (Hons.) in Applied Accounting and currently pursuing CIMA. He is also experienced as an internal auditor and general accountant. He has a career outlook of experiencing the nuances between teaching and the industry.

**Paper in International Journal**


**Abstract:** The developments in the field of information and communication technology (ICT) has significantly transformed and restructured the traditional models of higher education, particularly the delivery and interaction in and with course materials and associated resources. ICT enabled learning and teaching has become a widely accepted method of learning and teaching in educational institutions and organizations all over the world. A pedagogical model combining face-to-face classroom teaching and the innovative use of ICT contribute significantly to increase the effectiveness learning environment. This paper intends to analyze the overall perception and attitude of faculty towards the ICT enable learning and teaching in higher education institutions. Sample faculty members teaching in higher education institutes were part of the quantitative survey. The responses reveal that overall there is a significant positive attitude towards ICT enabled learning and teaching.
Papers published in International Journals


**Abstract:** Residual stresses form a major part of causing catastrophic failure among majority of the manufactured components. Residual stresses are the stresses that remain in a solid material after the original cause of the stresses has been removed. The current work involves the process of welding using varied parameters like current as well as varied quenching methods. Residual stresses were measured for each of the variable and are computed. It is observed from residual stress measurements that furnace cooling medium of quenching has shown lower values of residual stress when compared to the counterparts.


**Abstract:** One of the alarming environmental problems that require an immediate solution is associated with an infinitely increasing amount of ash produced during the burning of coal, oil, wood and other biomaterials. Among these, fly ash cenosphere utilization continues to be an important area of national concern due to India’s dependence on thermal power generation for its energy supply. Alloy 6061 is one of the most widely used alloys in the 6000 series. This standard structural alloy, one of the most versatile of the heat-treatable alloys, is popular for medium to high strength requirements and has good toughness characteristics. Alloy 6061 has excellent corrosion resistance to atmospheric conditions and good corrosion resistance to seawater. This paper deals with the manufacture of cenosphere aluminium composites with varied proportions of the reinforcement phase, fly ash cenospheres – 6061 aluminium composite with features in terms of corrosion resistance have been developed. Immersion corrosion studies have been carried out with a thorough correlation between the corroded surfaces and the results indicated. The corrosion studies show that there is an increase in the corrosion pitting of the cenosphere aluminium composite.


**Abstract:** Modern manufacturing processes require materials possessing properties that can be used for applications like turbines, heat exchangers, condensers etc. One such material is the Inconel 690 bearing various properties like high strength at elevated temperature, toughness, resistance to degradation in corrosive or oxidizing environment, etc. The present work is mainly focused on the study of hardness of Inconel 690 in As Forged condition and at ageing conditions of 725°C for 4 hours respectively. The As Forging is done by hot working the Inconel alloy at 1200°C for delivering high strength and resisting hot deformation. Also SEM (Scanning Electron Microscope) analyses of both the specimens are being conducted in order to analyze and understand the effect of ageing. The hardness measurement for the aged specimen was done on a Rockwell hardness testing machine on a B scale after air cooling of the specimen to room temperature. The experiments showed that the hardness of the Inconel alloy decreased from 82 HRB to 59 HRB (Rockwell B Hardness) after being subjected to heat treatment and ageing. From the morphology of the aged specimen it was observed that, there is formation of large grain boundaries in the same grain directions and also drastic increase in the grain size which relieved the internal stresses due to ageing.
DEPARTMENT OF Computer Science

Seminar

Mr. Denny Punnoose, Senior Industry Consultant, IBM Middle East, conducted a seminar for the Computer Science students on 25.02.2018. The seminar took place in the auditorium and was conducted in order to make the students aware of the various courses conducted by IBM Skills Academy and the value-add for the students like Predictive Analytics and Big Data Developer. The seminar was attended by the faculty members and final year students of Computer Science and Management Department.

Sports Report

The BIT RAK students participated in the Gulf Medical University (GMU) Sports Festival between February 24-28. After finishing runners up in two events last year (Throw ball girls and Badminton Girls) of the same tournament, they unfortunately were not able to replicate it this year. With over 26 colleges participating, the following are the results of the performances:

- Cricket – Quarter Finals
- Football – Quarter finals
- Volleyball – Pre-Quarters
- Basketball (Boys) – Semifinals
- Basketball (Girls) – Quarter Finals
- Basketball (Girls) – Quarter Finals
- Table Tennis (Boys) – Quarter Finals
- Table Tennis (Girls) – Semifinals
- Badminton (Boys) – Quarter Finals
- Throw ball (Girls) – Quarter Finals

The institute has also commenced with intra-college sports tournaments for this semester. Tournaments that will be taking place this year are Cricket, Basketball, Throw ball (girls), Table Tennis Doubles, Badminton, Carom and Athletics.