

ORIC

NEWSLETTER



Capital University
of Science and Technology Islamabad



Workshop on Latex

Seminar on “New Developments in Electric Motors and Drives”

Seminar on “UNESCO Science Programs in the Context of Pakistan’s Water Issue”

REVIT Essential Short Course

Workshop on Poster Writing

MOUs of CUST with HIT and H-Cube Group of Companies

Seminar on “Entrepreneurship and Innovation”

Establishment of BIM Centre of Excellence at CUST, Islamabad

Autodesk REVIT Electrical Workshop

Session with Director Research STMU, Islamabad

Revit Architecture Fundamental - BIM Center of Excellence

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Dean ORIC Message



Capital University of Science & Technology (CUST) Islamabad is a progressive academic institution that believes in actively contributing to the society through strong emphasis on research, innovation and commercialization. The objective of ORIC is to develop, expand, enhance and manage the university's research program and to link research activities directly to the educational, social and economic priorities of CUST and the society. We have a strong faith that our development efforts would be based on motivation and facilitation of the university researchers to innovate and collaborate with the stake-holders leading to resource generation through commercial-

ization. In this context, the ORIC Newsletter 2018 is in your hands. This Newssheet entails the contribution of ORIC towards its embattled domains i.e. Research Operations, Technology Incubation & Innovation and Industrial Liaisons. It is heartening to see that our research contributions are growing at a satisfactory pace and I expect our highly capable faculty and motivated students to do equally well in taking this research to the footsteps of society through the wheels of commercialization. The Office of Research, Innovation and Commercialization has done great work in compiling this newsletter of great value and would endure its prolific exertion to next level.

Prof. Dr. Aamer Iqbal Bhatti

First ORIC Advisory Board Meeting

The 1st ORIC Advisory Board meeting was held on Tuesday January 16, 2018 in the Workshop Room, B-Block. Prof. Dr. Aamer Iqbal Bhatti, Dean ORIC, chaired the meeting. Dr. Noor Muhammad Khan presented the Program Education Objectives (PEOs) for Faculty of Engineering. He briefed the committee members that Capital University of Science and Technology (CUST) Engineering Program has been selected as Washington Accord signatory, along with 3 other universities from Pakistan. Dr. Noor Muhammad Khan said that it is the HEC requirement to have Outcome Based

Educations (OBEs) for MS and PHD Programs, and following this Department of Electrical, Mechanical and Civil Engineering have defined their PEOs. Dr. Noor Muhammad Khan presented the PEOs in the ORIC Advisory Board as approved in the 2nd BOF meeting held on Friday 8th December, 2017.

Prof. Dr. Aamer Iqbal Bhatti, Dean ORIC continued the subsequent agenda. After detailed discussions of the board a number of key points emerged as recommendations.

One-Day Workshop on Latex

“One Day Workshop on Latex” was conducted on March 13, 2018. The honorable speakers for the workshop were Prof. Aamer Iqbal Bhatti, Dean ORIC, Capital University of Science and Technology and Dr. Ali Arshad, Assistant Professor, COMSATS Institute of Information Technology Islamabad. The objective of workshop was to provide a basic understanding of how to create documents using Latex, with audience including Professionals, Engineers, Faculty Members and Students. Topics covered included Latex Overview and Installation, Writing a document (Sections and paragraphs), Packages Installation, Math Operations, Figures, Tables, Table of Contents and Bibliography.



MOU between CUST and HIT

Heavy Industry Taxila (HIT) has grown into a military industrial complex which consists of six major production units, support facilities and administrative establishment. To formalize the collaboration between HIT and CUST and to make it durable and sustainable HIT team under the

leadership of Brig. Dr. Syed Waheed ul Haq visited CUST, Islamabad for signing of the MOU on Thursday 21st June, 2018. On this auspicious occasion Dean Faculty of Engineering (FOE) and Dean Research & Innovation welcomed the honorable guests.



Seminar on “Innovation, Entrepreneurship and Technology Management—New Domains for Expanding the Scope of Control Science and Engineering”

A seminar was conducted by the guest speaker Dr. Tariq Samad, Senior Fellow and W.R. Sweatt Chair, Technological Leadership Institute, University of Minnesota Minneapolis, USA. Dr. Tariq Samad holds the Honeywell/W.R. Sweat Chair in Technology Management and is the Director of Graduate Studies for the M.S. in the Management of Technology program at the Technological Leadership Institute, University of Minnesota. Dr. Samad holds 20 patents and has authored or coauthored over 100 conference and journal pub-

lications.

The seminar covered that how control ideas can inform innovation, entrepreneurship intrapreneurship and the management of technology. The relevance of feedback, optimization, estimation, modeling, and other topics in control were highlighted. Dr. Tariq Samad was presented the university memento by Dean Research & Innovation for his visit to Capital University of Science and Technology, Islamabad.

ORIC Research Committee Meeting

The 6th ORIC Research Committee meeting was held on 18th October, 2018 in the Workshop Room, B-Block. Prof. Aamer Iqbal Bhatti, Dean Research & Innovation, chaired the meeting. The following members attended the meeting. Dean Research and Innovation, Prof. Aamer Iqbal Bhatti welcomed the committee members and informed that ORIC Committee has been re-constituted. Three new members Dr. Abdul Rehman Kashif, Associate Professor (Math Dept), Dr. Muzaffar Asad, Assistant Professor (MS Dept) and Dr. Mahboob Alam, Assistant Professor (Pharmacy Dept) have been included in the ORIC Committee. Dean Research and Innovation apprised briefly about ORIC stating the three (03) major directions ORIC at CUST is contributing, that are:

- Research Operations
- Technology Incubation and Innovation
- Industry Liaison

Dean Research and Innovation further added that to have a trend of technology incubation and innovation, commercialization of FYPs will be done and for this purpose meetings have been planned with HoD Management Sciences and HoD Computer Science. He said that ORIC is also working for starting up of an Incubation lab at university, a step towards industry-academia liaison. ORIC activities calendar for fall 2018 was also shared with the ORIC Committee.



Seminar on “New Developments in Electric Motors and Drives”

A seminar was held at B-Block workshop Room on April 4, 2018 titled as “New Developments in Electric Motors and Drives”. The guest speaker of the talk was Dr. Mahmood Nagrial, Associate Professor, Western Sydney University, Sydney Australia.

Improving electric motor efficiency and associated drive systems could have a significant effect on the electricity consumed with a given society, ultimately improving the global environment and providing for a reduction in greenhouse emissions. However, due to developments in power electronics, microprocessors, signal processing and magnetic materials, new and highly efficient electric drive systems have emerged. These non-conventional drives are increasingly being employed for high performance motion control applications in aerospace, EV & HEV, domestic appliances, computer, process, robots, machine tools, spindle

drives and other servo and general industrial applications. Dr. Mahmood Nagrial covered new developments in high efficiency electric motors and drives.



Seminar on “UNESCO Science Programs in the Context of Pakistan’s Water Issue”

A seminar on “UNESCO Science Programs in the Context of Pakistan’s Water Issue” was organized by Department of Management Sciences in collaboration with the Office of Research Innovation and Commercialization (ORIC) on June 27, 2018. The guest speaker of the seminar was Prof. Dr. Shahbaz Khan, Director and Representative UNESCO Regional Science Bureau for Asia and the Pacific.

The presentation covered introduction of UNESCO and its evaluation since 1945. Prof. Dr. Shahbaz Khan then focused

on the UN Strategic Development Goal (SDG) number 06 in context of Pakistan, which is clean water and sanitation. He also proposed trans disciplinary water research for sustainable Pakistan. Prof. Dr. Shahbaz Khan also had a brief meeting with the Vice Chancellor Capital University of Science and Technology. The Vice Chancellor presented University memento to the guest speaker and thanked him for his visit to Capital University of Science and Technology, Islamabad.



Three Days REVIT Essential Short Course

Office of Research Innovation and Commercialization (ORIC) hosted a 3 days workshop entitled “REVIT Essential Short Course” on 02nd – 04th July, 2018. The workshop was a part of the university collaboration with H-Cube BMG Pvt. Ltd. The purpose of workshop was to equip the students with the basic knowledge of modern engineering tools.



A total of 21 participants including 14 Civil Engineering students and 7 Lab Engineers/Lecturers attended the workshop. Instructor of the Workshop was Mr. Shafaqat, lecturer at Lahore Institute of Animation and Design (LAD), Islamabad Campus. The participants of the workshop were provided user level AUTODESK authorized certifications by LAD.

Workshop on Poster Writing

Office of Research Innovation and Commercialization conducted a workshop on writing a poster for PhD work. The workshop was mandatory for those PhD students whose thesis have been submitted for foreign evaluation. The help regarding invitation of PhD students was provided by Director Graduate Studies (DGS).

Prof. Aamer Iqbal Bhatti, Dean Office of Research, Innovation & Commercialization was the worthy speaker at the workshop. The Purpose of event was to make university PhD students capable to make a poster of their own research work. A predefined poster template approved by competent authority of the university was also shared with the entire participating students.

Meeting on Commercialization of Final Year Project of Computer Science Students

A meeting was conducted in which Dr. Sajid Bashir, Head of Department of Management Sciences, Dr. Nayyar Masood, Head of Department of Computer Science and Dr. Amir Iqbal Bhatti, Dean Office of Research, Innovation and Commercialization participated and discussed several projects of Computer Science students to pursue them to commercialization. After an interactive session, one of the projects was selected, titled as “Smart Receptionist for the hospitals”. Later on some technical and managerial aspects of the project were discussed. This project is to be presented in upcoming 4th Cohort to be announced by National Incubation Center.

MOU signing ceremony between Capital University of Science and Technology and H-Cube Group of Companies

H-Cube BMG is an emerging platform providing total construction industrial Solution under one umbrella. To formalize collaboration between CUST and H-Cube and to make it sustainable Director H-Cube Mr. Saeed Ashraf along with his team visited CUST and signed an MOU on Sep 26, 2018. On this auspicious occasion Dean ORIC, HOD CE and Faculty of CE were also present.



Both parties agreed to establish multiple fronts via initiating internationally recognized certifications along with diplomas and professional development courses through deployment of H-Cube’s international industrial partner’s tools, products and services in accordance with CUST’s respective needs and objectives. The establishment of Autodesk Building Information Modeling (BIM) Centre of Excellence (CoE) was also agreed through this joint agreement.

Seminar on “Entrepreneurship and Innovation”

Office of Research Innovation and Commercialization (ORIC) organized a seminar for faculty on “Entrepreneurship and Innovation” on November 06, 2018. The guest speaker of the seminar was Mr Pervaiz Abbasi, Project Director National Incubation Center (NIC) Islamabad.



The guest speaker was welcomed to Capital University of Science and Technology (CUST) by Dr. Ansir Ali Rajput, Associate Dean Corporate Linkages. Dr. Ansir Ali Rajput started the proceedings of the seminar with the brief introduction of the guest speaker followed by an interesting and interactive session by Mr. Pervaiz Abbasi. He emphasized that economy survives only when the industry lead-

ers adapt to the changing times and supply the community needs. Any small business is integral to the economy, without it economy would not survive. But a business must also sustain itself, be able to constantly evolve to fulfill the demands of the community and the people. Associate Dean Corporate Linkages showed his gratitude to Mr. Pervaiz Abbasi and presented him the university memento.

Establishment of BIM Centre of Excellence at CUST, Islamabad

The Office of Research Innovation and Commercialization and Department of Civil Engineering in collaboration with H-CUBE have achieved another milestone towards Academia Industry Linkage by establishing “BIM Centre of Excellence (BIM CoE)”. The Centre offers international level courses and certifications. Dr. Engr. Muhammad Mansoor

Ahmed, the respected Vice Chancellor, CUST Islamabad inaugurated the facility during the ceremony held on December 15, 2018. The respected VC highlighted the importance of innovative technology implementations in construction sector. Engr. Abdul Qadeer, GM (Head), NESPAK Islamabad was the Chief Guest at the gracious event.



Three Days Autodesk REVIT Electrical Workshop

Capital University of Science and Technology hosted a 3 days workshop entitled “Autodesk REVIT Electrical Workshop” on Nov 29th, Dec 01st and Dec 03rd, 2018. The workshop was part of the university collaboration with H-Cube BMG Pvt. Ltd. Office of Research Innovation and Commercialization (ORIC) in alliance with the Department of Electrical Engineering organized the workshop aiming to equip students with the knowledge of modern engineering tools.



The students were provided hands on experience on complete building electrification using REVIT by the Instructor Mr. Shafaqat, lecturer at Lahore Institute of Animation and Design (LAD), Islamabad Campus. The participants of the workshop were provided user level AUTODESK authorized certifications by LAD.

Session with Director Research STMU, Islamabad

Office of Research Innovation and Commercialization has the ambition to brace the academic collaboration of the university. In this regard a brainstorming session with Dr. Fouzia Sadiq, Director Research, Shifa Tameer-e-Millat University (STMU) was held on January 09, 2019 during her visit to CUST.



The aim of her visit was to identify areas of research in which both universities can collaborate. It was agreed upon that collaboration between CUST and STMU would be continued in terms of research. In this regard research Seminar would be arranged for graduate students. Joint projects between CUST and STMU were also agreed upon by the stake holders.

Revit Architecture Fundamental - BIM CoE

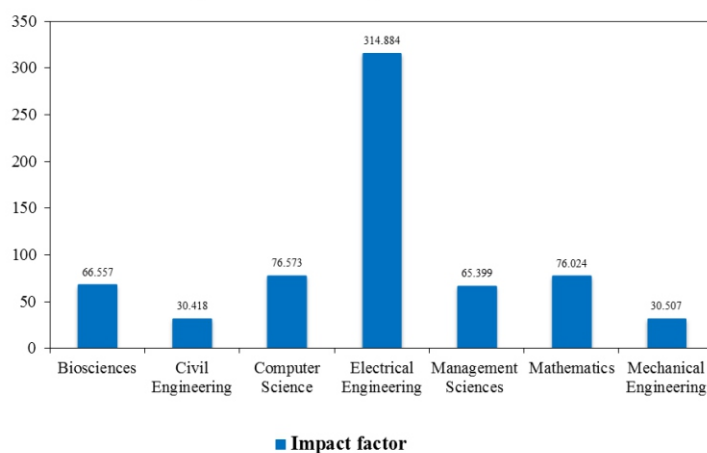
Newly established BIM Center of Excellence (BIM CoE) at Department of Civil Engineering, in collaboration with H-cube successfully conducted its first training workshop on REVIT Architecture Fundamentals for two (02) days on January 11th & 12th, 2019.

Individuals from various organizations and different edu-

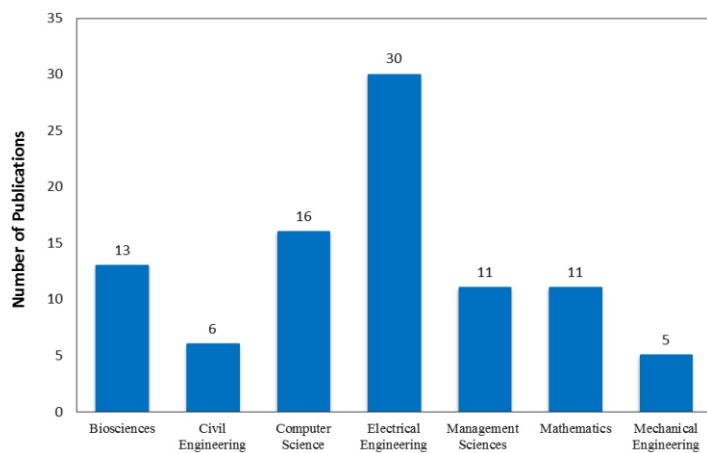
cational/industrial background (i.e. CDA, Designmen, PMO-NUST, IIUI etc.) participated in this training. During the two days, the participants were briefed about the fundamentals of BIM and they experienced hands on training of Revit Architecture. At the end of session, certificates were distributed among the participants.



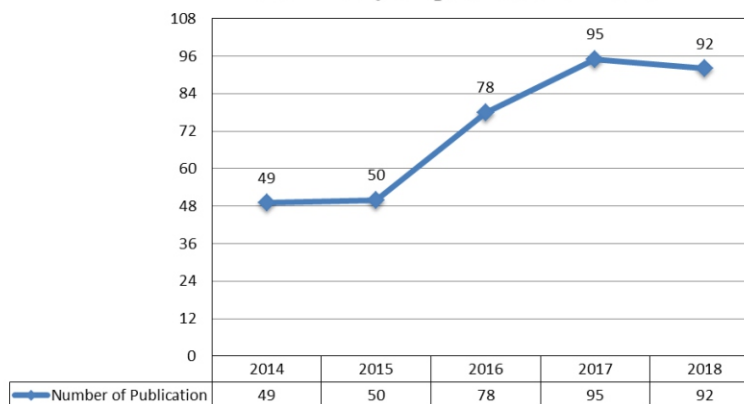
CUST Department wise Impact Factor To Date



CUST Department wise Publications 2018



CUST five year publications Trend



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