

NEWSLETTER

Issue 2018-19

DEPARTMENT OF COMPUTER SCIENCE FORMAN CHRISTIAN COLLEGE (A CHARTERED UNIVERSITY), LAHORE



Welcome Message

On behalf of the Department of Computer Science (DCS), welcome to the very first issue of the newsletter. In order to keep our students, alumni, faculty, and the entire FCC community informed about the department we have decided to do a regular newsletter once every year. If you have not checked in with us for a while, you will be pleased to know the wonderful things that have been happening. Our students have been winning prizes at competitions, getting offers for admission abroad, internships and jobs at the best organizations in the country.

Moving on, in the next year we will continue to maintain quality in our areas of strength and produce graduates ready to “take on the world”. We will also establish strategic focus areas including Artificial Intelligence, Human Computer Interaction, Internet of Things, Networking, and Software Engineering. We will partner with industry and government to carry out upstream research that delivers real value to people and society particularly in fields of agriculture, education, and healthcare.

We hope you enjoy reading this newsletter. We welcome your feedback to make it better; you can contact me directly with queries, suggestions, and concerns.

Cordially,

Dr. Aasia Khanum
Professor and Chair
Department of Computer Science



About the Department

The Department of Computer Science is part of the Faculty of Computer and Mathematical Sciences. It is one of the largest departments of the university, with more than 600 students currently majoring in CS. The department offers undergraduate and postgraduate programs in Computer Science as BS CS (Honors) and MS (CS) respectively, duly recognized by HEC. The undergraduate program was awarded the highest category of “W” during the last re-accreditation visit by the authorized body from HEC. Initiated in 2017, our MS program also continues to stay strong. Our students are writing papers, attending events, and winning awards.

The department has one of the best faculties in the country with brilliant academic record and active research output. The faculty in continuous pursuit of excellence lays great emphasis on curriculum revision and introduction of state of the art new courses. We offer a rigorous curriculum spanning theory and practical in order to prepare our graduates to play leading role in the field. We encourage our students to participate in professional events and they have been representing FCC in the best light over the past year.

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Students Achievements

Honors and Awards



Nabeel Zafar, student of MS (CS) was honored with a "Merit Award" at 3-minute thesis (3MT) event as part of COMPPEC 2019 held at NUST College of Electrical and Mechanical Engineering in April 2019. More than 30 universities from across Pakistan participated in COMPPEC with more than 100 teams. Nabeel's achievement is remarkable especially considering that it was the first time our graduate students participated in such a prestigious event of national scale which was mostly dominated by PhD students from established programs. The student was working under supervision of Dr. Saba Khalil Toor.



DCS as part of FCC ORIC team participated in "Science and Technology Expo" from February 11-13 at Pakistan Council Scientific and Industrial Research (PCSIR), Lahore. Three senior student projects from the department were exhibited: 1. Autonomous Pick and Drop Robot 2. Herb Identification System 3. Cook me up. The event was arranged by Federal Ministry of Science and Technology, Pakistan.

DCS participated in the Computer Project Exhibition and Competition (COMPPEC) held at NUST in June, 2018. COMPPEC is a prestigious annual forum for encouraging CS and Engineering projects undertaken by university students all over Pakistan. Our student team comprising Asad Umar and Abdullah Nafees won the “Best in Punjab” prize in the Embedded Systems category. The project was supervised by Mr. Rauf Butt and Dr. Nazim Ashraf.



Honors at Senior Project Exhibition Spring 2019

Best Senior Project:
 Aimen Shahid, Mahroo Ali, Mariam Ejaz
 AI Security system: Shield.
 Advisors: Dr. Sidra Minhas & Dr. Amara Tariq



Best Senior Project Poster:
 Sajid Ali, Umair Bhatti
 Transformers in FCCU 3D-VR Mobile Game
 Advisors: Samia Asloob, Dr. Nosheen Sabahat

Best Senior Project Report:
 Saad Shafiq, Faran Haider
 Personality Based E-Recruitment and CV
 Ranking System
 Advisors: Dr. Nosheen Sabahat, Dr. Amara Tariq



Conference Publications

It has been a productive year for students' publications. The undergrad students had their papers presented at prestigious conferences in the field. Students from our first batch of MS students got their papers accepted at IEEE international conference abroad.



BS (CS) students Aimen Shahid, Mahroo Ali, and Mariam Ejaz got their paper accepted at 11th IEEE International Conference of Electronics, Computers and Artificial Intelligence, ECAI 2019, Petesti, Romania. Aimen and Mahroo attended the conference and presented the paper titled "Shield: An Intelligent and Affordable Solution for Home Security".

BS (CS) students Habiba Ali and Zahra Shafiq with their advisor Zeeshan Haider Malik while presenting their paper at international conference in Singapore.



Alumni Achievements

Placements

- Several of our students got job at Systems Ltd. Systems is a global leader of next-generation IT services and BPO solutions. From the freshly graduated batch about seven are working at Systems.
- Our graduate Hadeeqa Butt got hired by Netsol Technologies Inc., one of the top software houses in Pakistan with headquarters in California, USA and appraised at CMMI Level 5.

- CS graduate Tasmia Shahid got hired at Afiniti (Pakistan Office). Beenish Najeeb (UG student) was selected for Summer Internship at Afiniti. Afiniti is the world's leading provider of AI-based behavioral pairing technology to enhance profitability for customer-facing enterprises.
- Many of our students got admission for higher studies in top-notch universities locally as well as abroad in technologically advanced countries. Some of them are Saad Shafiq, Sabur Butt, Fahad Faruqi, Gadhaun Aslam, Rubhan Azeem, Qurat ul Ain, Adeem Akhtar, Muhammad Assees, Faraz Ahmad Khan, Shahzaib Farrakh, and many others.

Alumni/Student Spotlight

In this section of the newsletter, we will be highlighting one of our brilliant alumni or student in every issue. This time it is Tasmia Shahid from our batch of 17-series students. She is currently working at Afiniti – an internationally renowned software house working on Artificial Intelligence and Machine Learning.



My four years at Forman Christian College University have been excellent and a memory to cherish for a lifetime. Studying at the FCCU brought an added value to my life. The faculty members worked so hard on our overall development put efforts to enhance our technical and interpersonal skills and I am really thankful to them to be always there for me. Being a Liberal Arts university FCC has helped me to explore various fields and gave opportunity to decide best for me. FCC has given me chance to work with multi-national brands like NESTLE and working with one of the multi-national software houses Afiniti. Afiniti is working on Artificial Intelligence and Machine Learning which an emerging field in Pakistan. I highly recommend FCCU for those who want to pursue their career in IT industry.

Faculty & Staff Achievements

Academic Progression

- Dr. Nazim Ashraf (Associate Professor) has been offered a Post doc position at the University College Cork, Ireland. Working at University College Cork would strengthen the faculty's research and ultimately benefit FCC when he will rejoin with more experience in research.
- Sidra Minhas completed her PhD (Software Engineering) from NUST. She is now Dr. Sidra Minhas.
- Maria Tamoor (Assistant Professor) is pursuing her PhD in CS from FAST Lahore. She has successfully completed her course work and is in the final stages of her research.

- Waqas Yasir (Lab Assistant) has successfully completed his BS (Honors) in Computer Science from Virtual University Pakistan.

Conferences/Publications (Selected List)

- Z. H. Malik and M. Arfan, "Evaluation of Accuracy: A Comparative Study between Touch Screen and Gesture Input", Future of Information and Communication Conference 2019, San Francisco, Springer, 2019.
- Z. H. Malik, T. Munir and M. Ali, "Usability Evaluation of Online Flight Reservation Systems", Future of Information and Communication Conference 2019, San Francisco, Springer, 2019.
- Shaleeza Sohail, Aasia Khanum, "Fuzzy Approach to Controller Placement Problem: Fuzzy Controller (FC)", International Conference on Advances in Big Data, Computing, and Data Communication (icABCD), Durban, South Africa, pp. 166-170, 2018.
- Maria Tamoor, Saara Asif, "Comparison of Different Multi Objective Evolutionary Algorithms for Bug Localization", International Conference on Applied Cognitive Computing (ACC'18), Las Vegas, USA
- Umer Rashid, Muhammad Afzal Bhatti, and Mubashar Mushtaq, "Proximal Search of Image Segments in CBIR" in proc. of 31st International Conference on Computer Applications in Industry and Engineering, (ISCA CAINE 2018), New Orleans, USA, 2018
- Zafar Iqbal, Saqib Iqbal, Mubashar Mushtaq, Ghazanfar Farooq and Khalid Saleem, "GLCM based Skin Diseases Classification using Texture Features" in proc. of 31st International Conference on Computer Applications in Industry and Engineering (ISCA CAINE 2018), New Orleans, USA, 2018
- Munawar, Saima, Saba Khalil Toor, Muhammad Aslam, and Muhammad Hamid. "Move to Smart Learning Environment: Exploratory Research of Challenges in Computer Laboratory and Design Intelligent Virtual Laboratory for eLearning Technology". Eurasia Journal of Mathematics, Science and Technology Education 14 no. 5 (2018): 1645-1662. doi:10.29333/ejmste/8503
- Munawar, Saima, Saba Khalil Toor, Muhammad Aslam, and Muhammad amid (2018).A Systematic Literature Review (SLR) of Virtual laboratory and Design Intelligent Lab Companion (ILC) agent for Intelligent Virtual Laboratory (IVL): Move to Smart ELearning Environment .Chapter in: Cases on SmartLearning Environments. IGI Global.

Professional/Community Service

- Dr. Aasia Khanum served as Program Evaluator for National Computing Education Accreditation Agency (NCEAC).
- Dr. Mubashar Mushtaq, Dr. Saad Bin Saleem, Dr. Nosheen Sabahat, Miss Maria Tamoor, served as Reviewers for international journals and conferences.
- Dr. Mubashar Mushtaq, Dr. Sarwan Abbasi, Dr. Saad Bin Saleem, Dr. Nosheen Sabahat, and Mr. Zeeshan Haider Malik served as judges at SOFTEC competition held at FAST Lahore.
- Dr. Sarwan Abbasi and Dr. Saad Bin Saleem attended UX Pakistan 2019 conference at LUMS Lahore.

- Miss Umber Nisar worked with doctors of Rashid Latif Medical College in analyzing the data using SPSS for hormonal levels of estrogen in gestational diabetes mellitus patients. The article titled “The Hormonal Levels of Estrogen in Second and Third Trimesters of Gestational Diabetes Mellitus Patients with or without Family History” got published in Pakistan Journal of Medical and Health Sciences.
- Dr. Amara Tariq and Adil Mukhtar offered a workshop on Artificial Intelligence and Machine Learning.



Adil Mukhtar and Dr. Amara Tariq conducting workshop on Machine Learning

Events

ORIENTATION SESSION FOR CS MAJORS (24TH APRIL 2019)



Orientation Session for Fresh CS Majors

INFORMATION SESSION BY NETSOL IN MAY 2019.



Netsol Representatives with CS Faculty

INFORMATION SESSIONS BY National Incubation Center Lahore (NICL)



Mr. Yasir Awan from NICL conducting the Information Session for Senior Project Students

SENIOR PROJECT EXHIBITION MAY 2019



Societies & Chapter Activities

Forman Computing Society (FCS)

FCS aims to encourage effort and interest of students in computing by taking initiatives like Tech Day, gaming competitions, programming events etc. The society endeavors to promote, foster and develop skills in the use of computers and to increase student's awareness on the importance of technical computer proficiency. Below is a glimpse of activities conducted by FCS over the past year.

September 2018

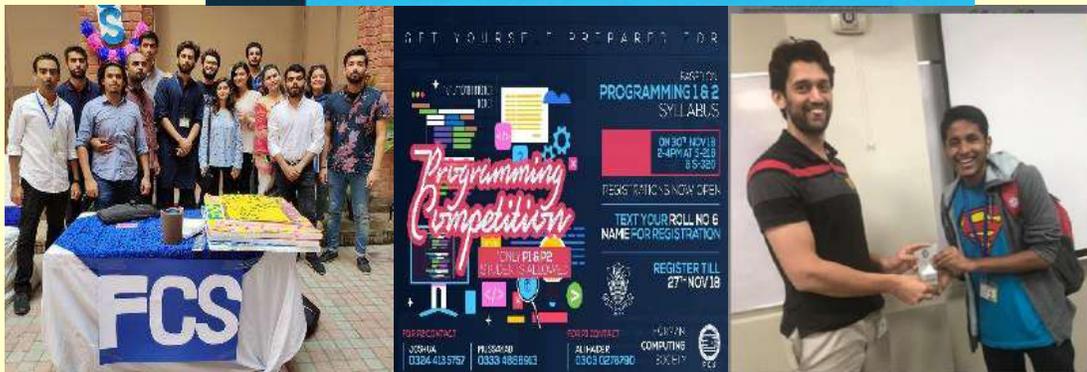
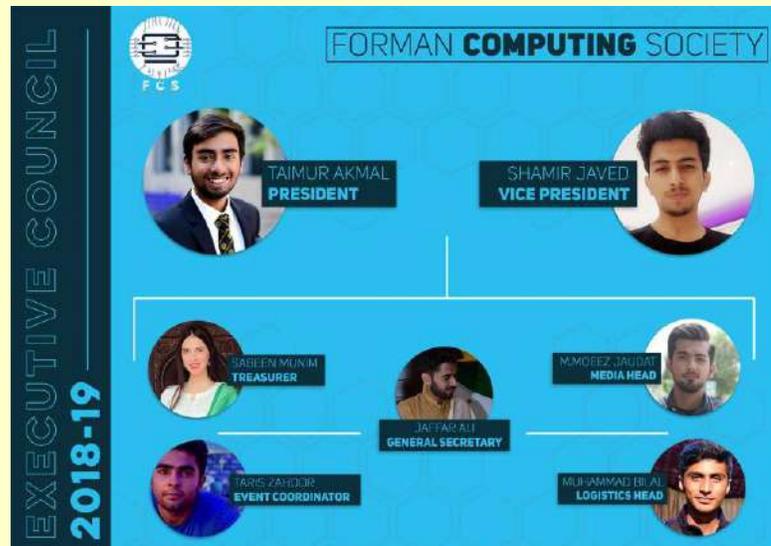
- Gaming Event (Let's Play Games) for Forman Experience 2018- To engage new freshmen towards Computer Science and how it can be used to develop games while also offering a networking opportunity.
- Lecture on: Academia, Industry Collaboration and Relevance of Student Projects - To enhance the understanding of CS seniors on industry and state of academia in perspective of FY projects.

November 2018

- PC Gaming Competition - To offer entertainment to students after hours, gaming competition was held as a healthy competition between all students.
- Programming Competition - To provide a platform for CS students to compete in a group-setting by solving Programming Problems.
- Programming Competition (Magna 19)- Open to students from institutes, this event provided a great competition of problem solving and speed-programming with real-world scenarios.

February 2019

- Gaming Competition (Magna 19) - Joining different student gamers from variety of institutes, this console gaming competition provided a great event addition to Magna.
- MindSweeper 19- A large scale, two day event was organized by FCS which brought together various events revolving science and technology such as Graphic Design, Programming Competition, Gaming Competition (PC and Console) and Web Development competition as well. The event received a large number of outside participation.



ACM Student Chapter

Association for Computing Machinery (ACM)'s Professional and Student chapters worldwide serve as hubs of activity for ACM members and the computing community at large. They provide seminars, lectures, learning forums and networking opportunities with peers and experts across the computing spectrum. Below is a breakdown of every event that was conducted by ACM's FCC student chapter during 2018 - 2019 tenure:

December 2018:

- Hour of Code:** Every student should have the opportunity to learn computer science. It helps nurture problem-solving skills, logic and creativity. The Hour of Code started as a one-hour introduction to computer science, designed to demystify "code", to show that anybody can learn the basics, and to broaden participation in the field of computer science. It has since become a worldwide effort to celebrate computer science, starting with 4-hour coding activities but expanding to all sorts of community efforts. The FCC ACM Chapter also held this event at FCC.

Students from all over FCC were openly invited to this event and given simple and basic problems to solve that required little to no programming background or knowledge.

February 2019

- Magna'19 Programming Competition 2019: As part of FCC' Magna'19 event, FCC ACM Chapter organized a programming competition for students of various institutions.
- One Minute Madness (3rd Edition): "Each faculty member presents his/her topic of interest or domain. The presentations are about the research interest and future work the faculty member wants to do. It also includes the kind of Senior Projects the faculty member may want to take up that concern his/her research. The challenge is to do it in one minute.

April 2019

- Code Mantra (Session 1): We have started a series of sessions related to student interests focusing on Computer Science students. The Sessions will be mostly conducted by students to provide informal interactive sessions to enhance learning of the students on topics, frameworks, fields etc. other than their courses. Any suggestions for topics for sessions are welcome as well.

The first session included the following activities: 1) Python Open-house for encouraging CS Programming 1 and Programming 2 students to come and discuss their problems. 2) 2. Intro to Computer Vision: an intro to the popular field.

- Microsoft Azure Bootcamp 2019: This was an informative one day workshop on Microsoft Azure and all related technologies as part of the Azure Global Boot Camp 2019 initiative. The 3 guest speakers shed light on the topic and provided key insights to all interested in the platform.

May 2019

- Code Mantra (Session 2): at our 1.5 hour talk students got to learn getting themselves in the data science domain and what basic skills are needed to be a data analyst/machine learning engineer/data scientist.





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