



# NEWSLETTER

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LAHORE  
CAMPUS

# MESSAGE



FROM THE DEAN  
AND  
HEAD OF DEPARTMENT

Greetings Everyone, on behalf of all the honorable faculty members and the innovative students of Department of Computer Sciences(CS). COMSATS INSTITUTE OF INFORMATION TECHNOLOGY, Lahore, I welcome you all. Fortunately, we live in an era of technology, where everything is just a click away. The discipline of Computer Sciences has flourished exponentially from the past 2 decades. As a computer scientist it is a matter of pride for me and the rest of the CS community to be a vital part of this technological world.

“  
**OUR DEPARTMENT WAS FOUNDED IN 2002 SINCE THEN WE ARE  
DELIVERING SKILLED AND PROFOUND COMPUTER SCIENTISTS EACH YEAR**  
”

We offer BS Computer Sciences (BSCS) and BS Software Engineering (BSSE), MS in Computer Sciences (MSCS) and PhD in Computer Sciences, hence provide the nation with the bright stars of the future to glorify our beloved homeland. I wish all CIIT family Godspeed.

# MESSAGE



FROM THE CHAIRMAN

I wish you all the best of health and happy computing, My message for you all is very simple

“  
**THERE IS NOTHING FOR MAN EXCEPT  
WHAT HE STRIVES FOR**  
”

Even the sky isn't your limit, your ambitions and efforts can lead you to places unconquered by mankind. Work hard and become immortal in the history of this mortal world.

# MEETING



## WITH THE DIRECTOR

The meeting of director with the faculty of department of computer science was held on 30th January 2017. The Respected Director of COMSATS Lahore, Dr. Qaisar Abbas, chaired the meeting in his capacity, where he appreciated the good performance of the management and faculty. He also praised the growth of department in terms of number of students that depict the quality of education produced by the department. The Director discussed different aspects as well as issues regarding management, faculty and students.

First of all, he appreciated the research activities by the faculty and encouraged them to increase the number of publications in the upcoming semesters. He also encouraged the faculty to practice peer reviews to improve classroom management and their teaching skills.

The Director emphasised on the medium of instruction should be English language in the class room environment. He also talked about different scholarships to facilitate the students, etc. The worthy director suggested that faculty should communicate the moral and ethical norms to the students on regular basis. He welcomed all the new faculty members of Cs Department.

The meeting ended with the vote of thanks.



# RESEARCH AWARDS:

Research Productivity Award (RPA) 2015 ceremony was organized on October 06, 2016 at N-Block, CIIT ,Lahore. The worthy Rector of CIIT ,Dr. Junaid Zaidi (Hilal-i-Imtiaz, Sitara-i-Imtiaz) was the honorable chief guest of this ceremony. All participants and the respected faculty members attended the conference.

This ceremony is arranged yearly to appreciate the research scientists of CIIT and as well as other great minds, who strive to unravel the mysteries of this world and work hard to make a difference .A matter of pride for the entire CIIT family is that 107 P.H.D's received their certificates and awards. High tea was arranged the audience.



## I-Pakistan Event

The iPakistan event was organized by CIIT on 26 - 27 November 2016 in Islamabad.(Serena Hotel) Tjis event was attended by 448 employees of CIIT from all over campuses including Attock ,Islamabad ,Lahore ,Sahiwal ,Wah , Abbotabad. The worthy rector Junaid Zaidi( Hilal-i-Imtiaz, Sitara-i-Imtiaz) , Dean FIST Dr. Syed Asad Hussain and chairman Dr. Zulfiqar Habib participated and motivated the younger as well as more experienced researchers, this event provided an opportunity for people working in common fields to get acquainted with each other.



# IEEE Robotics & Automation

IEEE Robotics & Automation Society Track was organized at IEEE Lahore Student/YP/WIE/TC Congress, 2016 organized in collaboration with IEEE Lahore Section, IEEE Young Professionals Lahore and IEEE Student Branch Superior University Lahore. Dr Wajahat M.Qazi attended the event as A Guest Speaker and Penalists and enlightened the members of his experience.



## Web Development Workshop

A workshop was organized by the CS department on Web development. The CTO of skylinx Technologies "Mr. Faizan Chughtai" and his team delivered this 2 day workshop. Students from all semesters attended the work shop in large number. This activity was appreciated both by the faculty and the students. The entire 2 day workshop was supervised by "Ms. Sara Muneeb" and her students.



## DICE-IET 2016:

This was held at CIIT Sahiwal Campus. A Final year project named "B'Kicks" supervised by Muhammad Mohsin Mehdi (lecturer CIIT LAHORE) won the first prize in the competition. While a graduate student supervised by Dr. Abid Sohail Bhutta got the best presenter award. Cs department students proved their expertise in this event. And have left a legacy for juniors to carry on.



## ICOSST 2016 CONFERENCE

Dr. Zulfiqar Habib was invited as the speaker at ICOSST 2016 Conference, UET Lahore held on December 16, 2016. He delivered an inspiring speech on "Industrial applications of computer vision with an emerging revolution in machine learning techniques".



## Intelligent Machine & Robotics Group

**Dr. Wajahat Qazi** has given the talk on;

- “Man-Machine Society: Progress, Challenges and Opportunities” at 11th Workshop on Field and Assistive Robots, held on 13-15 October, 2016 at University of Central Punjab, Lahore.
- “NiHA: Nature-inspired Humanoid Cognitive Computing Platform for Self-aware and Conscious Agents” at Frontiers of Information Technology, held on 19-21 December, 2016 at Serena Hotel, Islamabad.

**Syed Tanweer Shah Bukhari** has given the talk on;

- “Towards Machine Imagination Using Cognitive Modeling Approach” at DICE-Information & Enabling Technologies (IET) Innovation Event, held on 31 October – 01 November, 2016, at COMSATS Institute of Information Technology, Sahiwal Campus.



# FIT

14th International Conference on Frontiers of Information Technology (FIT'16) was held from December 19-21, 2016 at Islamabad Pakistan. This was the fourteenth consecutive year that COMSATS Institute of Information Technology (CIIT) organized this event. Students and faculty members from Cs department attended this event.

# CORN PARTY

On October 5, 2016. Mr. Chaudhary Nadeem faculty member of CS department arranged corn party at C-12 .Faculty members enjoyed eating corn and exchanged stories and shared a laugh together.



# ORANGE PARTY

Oranges are often known as the mango of winter. With the same idea, faculty members of CS department arranged orange party. Many of the honorable faculty members attended it and had oranges.



# EID MILAN PARTY

AFTER the holy and sacred month of Ramadan blessed whole of mankind this year, it goes without joy , if there isn't an eid milan party . With that same spirit an Iftar party was organized .All the respected faculty members were invited ,it was a get together for welcoming supper for the blessings of EID.



# FORTNIGHT PARTY

A Party is arranged at Faculty block for the Phd scholars on Friday's .This party is a healthy activity for the scholars ,this is an informal refreshment for these great minds in their formal lives.



# AWARDS HATTRICK

A student named "Abdullah Cheema" received 3 awards this year alone .This student has proved that there truly isn't any thing as too many achievements .We wish him good luck and hope that he fills his trophy case .



# Admissions

Admissions for the programs of bachelors in "Computer Science", "Software Engineering" and "Computer Engineering" for SP-2017 have been Completed. The Students will attend their orientation on the 4th of February, 2017.

## **Bachelor of Science in Computer Science**

Bachelor of Science in Computer Science program at CIIT focuses on instilling comprehensive computer science knowledge among students. The purpose of this program is to produce graduates with a sound knowledge of computer science, contemporary technologies, and professional skills.

## **Bachelor of Science in Software Engineering**

This program is preparing professionals having a mastery of software development principles, theory, practice, and process to develop high quality software applications. It is producing future agents of change, individuals who will be leading and improving the software industry and practices in the coming years.

## **Master of Computer Science**

Master of Computer Science program at CIIT has been designed for those students who wish to improve their knowledge of recent developments in Information Technology and to deepen their understanding in computer science.

## **Bachelor of Science in Computer Science**

Bachelor of Science in Computer Science program at CIIT focuses on instilling comprehensive computer science knowledge among students. The purpose of this program is to produce graduates with a sound knowledge of computer science, contemporary technologies, and professional skills.

# Scholarships for Students

Sr. No	Name of Scholarship	Type of Scholarship	Who can Apply	Eligibility Criteria
1	Merit Scholarships	Merit based/ up to 100% tuition fee waiver	New applicants/ students of FA16 for BS programs only	Notification attached Also seen on website
2	HEC-PAK-USAID Need Based	Need Based- Scholarship/ Fully funded	For open merit all Computing/Engineering BS/MS programs	Based on Need Assessment
3	NTS Need Based	Need Based- Scholarships/ Partially funded	All open merit For BS/MS programs	Based on Merit cum Need Assessment
4	Punjab Educational Endowment Fund Scholarship (PEEF)	Need Based- Scholarship/ Partially funded	1 <sup>st</sup> semester students only For BS and MS programs	i). HSSC/BS in 2016 with 60% Marks or 2.5 CGPA ii) Domicile Punjab iii) Salary Limit P.M 30,000/-
5	CIIT-Qarz-e-Hasna (Interest Free Loan)	Interest Free Loan/ Partially Funded	All open merit students For BS and MS	Based on Need Assessment
6	Ihsan Trust- Qarz-e- Hasna (Interest Free Loan)	Interest Free Loan/Partially Funded	All open students For BS and MS programs	Based on Need Assessment
7	Worker children 30% Quota-Free Education	Fully Funded	Children of workers	Based upon criteria set out by PWWB
8	HEC-PM Reimbursement Scheme	Partially funded	New Intake PhD students from selected Areas	Enrolled in PhD/belongs to selected district District list can be seen at HEC Link/at SFAO office
9	Federal/Provincial Benevolent Fund Scholarships	Partially Funded	Students/Children of permanent Govt. Employees Federal/Provincial	as per Govt. Rules/ For Details visit SFAO office
10	Kinship Concession	Partially Funded	All open merit students	Two or more students concurrently studying at CIIT

# Welcome Party

As a tradition the seniors welcoming their juniors .This time the seniors from 2nd semester give the freshmen a welcome party .This party was of joy ,singing and dancing . The sad poetry of a new hostelite expressed his emotions about a life away from home was very much appreciated by the entire gathering .This event was supervised by "Ms. Asmara Safdar".



# Sports Week

This student's week, the Cs department students outdid themselves in sports. Rather it be cricket, football or sack race, you name the sports, we'll show you the trophy or medal. Students proved that not only they are innovators but also well trained athletes and sportsmen.



# Pet Expo

As its said "Dog is man's best friend".

Student's from Cs Department proved it and not only with dogs but with other pets as cats, tortoise and even snakes. This student's week a mega pet Expo was organized in front of N block. Many students participated in dog show and the first 3 positions received prizes as well. This entire activity was supervised by Mr. Abdul Karim Shahid.



# GeekSpree

When it comes to IT, CIIT is ranked at the top, so why not arrange events for promotion of IT? This question was answered this year by the students of Cs department. Geekspre'e'16 was supervision under "Mr. Imran Raza"



# Gig Night

If there are coders around then coffee and then some music is a must. The closing ceremony on geekspre'e'16 was a musical evening featuring COMSATS MUSIC SOCIETY as the main band to perform. It was a fun packed event. The HOD himself attended this closing ceremony as well as the musical eve.



It is a startup of students from Cs Department consisted of "Umer Baig" and "Nabeel Ashraf" was recently selected at Plan9 for incubation . We wish them best of luck for their future goals and the entire Cs department is proud of these brilliant students.

## Published in the National Geographic

A student named "Mohammad Samad" from Cs department captured some pictures student's week ,he submitted a picture on National Geographic and it was published on 16 January 2017 ,worldwide by National Geographic .We are proud on his achievement

## New Entries in Newsletter Committee

This time the committee has decided to introduce students in the newsletter committee, hence 2 students "Saad Ahmad Bhatti ": who handled the graphics and design of this newsletter and "Mohammad Samad": who wrote the content of this newsletter , both are now a part of the newsletter comity .We welcome them in this noble committee and hope that they will work with great enthusiasm in the near future as well.



# Research Papers

S.No	Title	Authors	Journal Name	Volume/Issue	Page/Article ID
1	A systematic literature review on software measurement programs	Touseef Tahir, Ghulam Rasool, Cigdem Gencel	Information and Software Technology	Volume 73	Pages 101-121
2	Thermal Prediction Models For Virtualized Data Center Servers By Using Thermal-Profiles	Tayyab Chaudhry, Chun Yong Chong, T.C. Ling, Saim Rasheed and Jongwon Kim	Malaysian Journal Of Computer Science	Vol. 29, No. 1	Pages: 1-14
3	The role of facial asymmetry in recognizing age-separated face images	Muhammad Sajid, Imtiaz Ahmad Taj, Usama Ijaz Bajwa, Naeem Iqbal Ratyal	Computers & Electrical Engineering	Volume 54(2016)	Pages 255-270
4	Visual object tracking classical and contemporary approaches	Ahmad, Abdul Jalil, Jianwei Niu, Xiaoke, Saima, Ahmed, Aksam	Frontiers of Computer Science	Volume 10, Issue 1	Pages. 167-188
5	Copy-Move and Splicing Image Forgery Detection and Localization: A Review	Khurshid Asghar, Zulfikar Habib, Muhammad Hussain	Australian Journal of Forensic Sciences	10.1080/00450618.2016.1153711	Pages 1-27
6	Chinese-based Spearcons: Improving Pedestrian Navigation Performance in Eyes-Free Environment	Hussain, Chen, Mirza, Wang, Memon	(IJHCI),	Vol: 1, Issue: 1	pp: 1-30
7	Considering the effect of biomass energy consumption on economic growth: fresh evidence from BRICS region	Shahbaz, Muhammad, Ghulam Rasool, Khalid Ahmed, and Mantu Kumar Mahalik	Renewable and Sustainable Energy Reviews	Vol 60	1442-1450
8	Novel structural descriptors for automated colon cancer detection and grading	Saima Rathore, Mutawarra Hussain, Aksam Iftikhar, Abdul Jalil	Computer methods and programs in biomedicine	Volume 121, Issue 2	pp. 92-108
9	CBISC: A novel approach for Colon Biopsy Image Segmentation and Classification	Saima rathore, Aksam Iftikhar	Arabian Journal of Science and Engineering	DOI: 10.1007/s13369-016-2187-2	pp 1-16
10	An IR-based Approach Utilizing Query Expansion for Plagiarism Detection in MEDLINE	R. Nawab, M. Stevenson and P. Clough	IEEE/ACM	Volume:PP, Issue: 99)	PP: 1-9
11	Statistical Machine Translation of Indian Languages: A Survey	N Khan, W Anwar, U I Bajwa, F Ahmad	Neural Computing and Applications	-	-
12	A Lightweight Approach for Detection of Code Smells	Ghulam Rasool, Zeeshan Arshad	Arabian Journal for Science and Engineering	Ref.: Ms. No. AJSE-D-15-04237R4	pp 1-24
13	A Comparative Study of Land Cover Classification by Using	S Qadri, DM Khan, Farooq Ahmad, Syed Furqan	BioMed Research International	Volume 2016 (2016)	Pages 1-12



# Research Papers

	Multispectral and Texture Data,				
14	COUNTER - Corpus of Urdu News Text Reuse	M. Sharjeel, R. Nawab, P. Rayson	Language Resources and Evaluation	Vol 1/Issue 4	pp 1-27
15	Merge-and-forward: a cooperative multimedia transmissions protocol using RaptorQ codes	Talha Gul, Amjad Ali, Deepak Kumar, Umera Imtinan, Imran Raza, Syed Asad Hussain, Doug Young, and Jong-wook Lee.	IET Communications	Issue 10, no. 15	Pages 1884-1895.
16	Hierarchical Coloured Petri Net based Random Direction Mobility Model for Wireless Communications,	Naeem Akhtar Khan, Farooq Ahmad, Syed Asad Hussain, Mudasser Naseer	KSII Transactions on Internet and Information Systems	Vol. 10, No.8	pp. 3656-3671
17	ZigBee's Received Signal Strength and Latency Evaluation under Varying Environments	H. H. R. Sherazi, Razi Iqbal, Sana Ul Hassan, M. H. Chaudary, and Syed Asfandiyar Gilani	Hindawi Publishing Corporation, Journal of Computer Networks and Communications	Vol 2016	Pages 1-8
18	On Complete Coverage Path Planning Algorithms for Non-holonomic Mobile Robots: Survey and Challenges	Amna Khan, Iram Noreen, Zulfiqar Habib	Journal of Information Science and Engineering	Vol: 33, Issue: 1	1-23
19	Human Action Recognition from Multiple Views Based on View Invariant Feature Descriptor Using Support Vector Machine	Allah Bux Sargano, Plamen Angelov, Zulfiqar Habib	Applied Sciences	Vol: 6, Issue: 10	309
20	Optimal Path Planning using RRT* Based Approaches: A Survey	Iram Noreen, Amna Khan, Zulfiqar Habib	International Journal of Advanced Computer Science and Applications,	Vol: 7, Issue: 11	pp: 97-107
21	A Comparison of RRT, RRT* and RRT*-Smart Path Planning Algorithms	Iram Noreen, Amna Khan, Zulfiqar Habib	International Journal of Computer Science and Network Security	Vol 16-Issue 10	PP 20-27
22	Impact of Cognition on User Authentication Scheme in Vehicle using Fuzzy Logic and Artificial Neural Network	Yousaf Saeed, Khalil Ahmed, Mahi Lohi, Sagheer Abbas, Atifa Athar	International Journal of Computer Science and Information Security	Vol. 14 No. 10	pp. 285-296
23	Simulation, Modeling and Analysis of Master Node Election Algorithm Based on Signal Strength for VANETs through Colored Petri nets	Syed Asad Hussain, Naeem Akhtar Khan, Ayesha Sadiq, Farooq Ahmad	Neural Computing and Applications	Vol 27 Issues 142	pp 1-17
24	Intelligent Agent Navigation using Bluetooth Based Ad Hoc Communication	Sagheer Abbas, Bilal Nawaz, Atifa Athar, Yousaf Saeed, Wasim Ahmad Khan	International Journal of Computer Science and Information Security	Vol. 14 No. 11	-
25	A survey of P2P content sharing in MANETs	Nadir Shah, S.A. Abid, Depei Qian, Waqar Mehmood <sup>a</sup>	Computers & Electrical Engineering	Volume 57 Issue 1	Pages 55-68



## Research Papers

26	OWLMap: Fully Automatic Mapping of Ontology into Relational Database Schema	Humaira Afzal, Mahwish Waqas, Tabbassum Naz	(IJACSA) International Journal of Advanced Computer Science and Applications,	Volume 7 Issue 11	PP- 7-15
27	A survey on search results diversification techniques	Abid, A., Hussain, N., Abid, K., Farooq Ahmad., Farooq, M. S., Farooq, U. & Sabir, N	Neural Computing and Applications	27/5	1207-1229
28	Modeling and Simulation of Improved Random Direction Mobility Model for Wireless Networks using Colored Petri Nets	NA Khan, Farooq Ahmad	Simulation: Transactions of the Society for Modeling and simulation International	92/4	323-336
29	Business process analysis: a process warehouse-based resource preference evaluation method	A Sohail, PDD Dominic, K Shahzad	International Journal of Business Information Systems	Vol 21 Issue (2)	137-161



## Conference Papers

Iram Noreen, Amna Khan, Hassan Ahmed, Zulfiqar Habib, "Optimal Path Planning for Mobile Robots Using Memory Efficient A*", The Proceedings of IEEE International conference on Computing, Electronic and Electrical Engineering (ICE Cube), April 11-12, 2016, Accepted.
Naeem I. Ratyal, Intiaz Ahmad Taj, Usama Ijaz Bajwa, M.Sajid, Mirza Jabbar A. Baig and Faisal M. Butt, " 3D Face Recognition based on Region Ensemble and Hybrid Features", in Proceedings of the International Conference on Computing, Electronic and Electrical Engineering (ICE Cube), April 11-12,2016.
Allah Bux Sargano, Plamen Angelov, Zulfiqar Habib, "Vision Based Human Activity Recognition: A Re view" UKCI conference 2016, Lancaster, United Kingdom [Status: published]
Iram Noreen, Amna Khan, Zulfiqar Habib, "Optimal Path Planning for Mobile Robots Using Memory Efficient A*", FIT conference 2016, Islamabad, Pakistan [Status: accepted]
Amna Khan, Iram Noreen, Zulfiqar Habib, "Coverage Path Planning of Mobile Robots using Rational Quadratic Bézier Spline", FIT conference 2016, Islamabad, Pakistan [Status: accepted]
Saima Rathore, Muhammad Aksam Ifikhar, Mehdi Hassan, Ensemble sparse classification of colon cancer, Accepted in 14th International Conference on Frontiers of Information Technology (FIT 2016)
Amna Khan, Iram Noreen, Zulfiqar Habib, "Coverage Path Planning of Mobile Robots using Rational Quadratic Bézier Spline", The Proceedings of 14th International Conference on Frontiers of Information Technology (FIT 2016), Islamabad, IEEE Computer Society Press, USA, Dec. 19-21, accepted.
Iram Noreen, Amna Khan, Zulfiqar Habib, "Optimal Path Planning for Mobile Robots Using Memory Efficient A*", The Proceedings of 14th International Conference on Frontiers of Information Technology (FIT 2016), Islamabad, IEEE Computer Society Press, USA, Dec. 19-21, accepted.
Muhammad Aksam Ifikhar, Mehdi Hassan, Hani Alquhayz, A colon cancer grade prediction model using texture and statistical features, SMOTE and mRMR, Accepted in IEEE INMIC 2016
Saima Rathore, Muhammad Aksam Ifikhar, Mehdi Hassan, Ensemble sparse classification of colon cancer, Accepted in IEEE FIT 2016
Muhammad Aksam Ifikhar, Adnan Idris, An ensemble classification approach for automated diagnosis of Alzheimer's disease and mild cognitive impairment, Accepted in IEEE ICOSST 2016
Khan, N. A., Ahmad, F., Hussain, S. A., & Khan, S. A. (2015, December). Modeling and Simulation of Community Mobility Model for Next Generation Wireless Networks Using Coloured Petri Nets. In 2015 IEEE 14th International Conference on Machine Learning and Applications (ICMLA) (pp. 1240-1245). IEEE.
Process warehouse based agent's competencies measurement method for business process improvement A Sohail, PDD Dominic Computer and Information Sciences (ICCOINS), 2016 3rd International Link : <a href="http://ieeexplore.ieee.org/abstract/document/7783209/citations">http://ieeexplore.ieee.org/abstract/document/7783209/citations</a>

# New Additions



**Ushna Chaudhry**  
Research Associate

**Qualification:** Bachelors in Software Engineering

**Research Interest:** Human-Computer Interaction



**Dr Hassan Jamal**  
Assistant Professor

**Qualification:** Doctorate in Computer Science

**Research Interest:** Computer Science



**Muhammad Umar Farooq**  
Research Associate

**Qualification:** Bachelors of Engineering Software Engineering (University of Bradford, UK)

**Research Interest:** Data Clustering Techniques



**Maria Iqbal**  
Research Associate

**Qualification:** Master in Software Engineering

**Research Interest:** Software Project Management, Android Development



**Zaheer Ahmad Gondal**  
Lecturer

**Qualification:** MS in Computer Science

**Research Interest:** AI & Adaptive Sys.



**Muhammad Abubakar Ashraf**  
Research Associate

**Qualification:** Bachelors in Computer Science

**Research Interest:** Software Engineering



**Amaid Zia**  
Lecturer

**Qualification:** MS in Robotics Engineering



**Dr Zeeshan Gillani**  
Assistant Professor

**Qualification:** PHD in Computer Sciences

**Research Interest:** Machine Learning, Image processing, Data Mining, Biological network



# TEAM BEHIND THIS NEWSLETTER



**Miss Maria Abedi**



**Miss Anam Ahsan**



**Saad Ahmad**



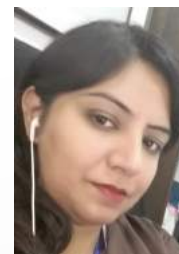
**Dr Zulfiqar Habib**



**Kamran Jamil**



**Muhammad Samad**



**Dr Atifa Athar**