DEPARTMENT OF COMPUTER SCIENCE UNIVERSITY OF DELHI



RECRUITMENT GUIDE

2018-2019

MESSAGE FROM THE VICE-CHANCELLOR

The Department of Computer Science, University of Delhi, runs two postgraduate courses namely Master of Computer Applications (MCA) & M.Sc. Computer Science and prepares the students for a bright future. Emphasis is laid on the theoretical concepts as well as on practical experience and industry interaction.

I am pleased that the Department of Computer Science has been successfully bringing out a placement brochure to facilitate campus recruitment of their students.

I am sure that many bright and enthusiastic students will continue to join these courses. My best wishes for this initiative at our university.



YOGESH TYAGI VICE - CHANCELLOR UNIVERSITY OF DELHI



MESSAGE FROM THE HEAD OF THE DEPARTMENT

The Department of Computer Science, University of Delhi has the proud privilege or being one of the earliest university departments in the country to offer three-year Master of Computer Applications (MCA) programme. In 2004, recognizing the growing importance of computer science research in the country, the Department started two-year M.Sc. Computer Science programme. The Department also has a vibrant Ph.D. programme with nearly 50 research scholars.

MCA programme aims to develop core competence for developing high-quality software and adapting cutting edge and bleeding edge technologies. The MCA students, as part of their curricula, undertake a project in the industry in their final semester. Projects are undertaken in diverse areas such as Database Systems, Computer Networks and Communication, Software Engineering, E-Business and Graphics. During the project, they apply their knowledge and experience gained during the course to develop IT applications as per industry requirements. The success of our MCA students is well known in the industry. Three and a half decades later, we are proud of our alumni holding fop positions in many prominent IT/software companies all over the globe.

M.Sc. Computer Science programme is the flagship programme of the Department aimed at inculcating innovative thinking. The focus of this programme is to develop research skills, in addition to imparting relevant theoretical knowledge and practical skills in the global context. The students complete a minor project in the third semester and a major project in the fourth semester. Project areas include Algorithms, Parallel Computing, Semantic Web, Computer Security, Artificial Intelligence, Computer Networks, Data mining, Text mining, Network Analytics etc.. A decade later, we have more than dozen alumni who are either pursuing or have completed doctoral studies from prestigious universities in India and abroad. Majority of our M.Sc. students are contributing to software companies.

The Department is proud to have more than 1200 alumni holding important positions in IT industry and academic at national and international levels.

VASUDHA BHATNAGAR HEAD OF THE DEPARTMENT



MESSAGE FROM THE PLACEMENT ADVISOR

The Department of Computer Science, University of Delhi continues its legacy of providing quality education since 1981. Since then the department has produced several distinguished alumni in wide areas of software development, teaching, and research. The department offers two master programmes, a three-year (six-semesters) Master of Computer Applications (MCA) and a two-year (four-semesters) Master of Computer Science (M.Sc (C.S)).

MCA programme was started in 1982 to meet the growing demand for IT professionals in the industry. The programme equips the students with core computer science knowledge to prepare them for industry and academia. As a part of their curriculum, the students undertake projects in the industry in diverse areas like Database Systems, Communication and computer networks etc.

M.Sc. Computer Science programme, introduced in the year 2004, aims to develop core competence in Computer Science and prepare the students to take up a career in the highly competitive IT industry as well as carry out research and development. Students take up a minor project in the third semester and a major project in the final semester. During this one year of project work, students develop a better aptitude for analytical reasoning, presentation, and skill of working in a team. Project areas include Approximation Algorithms, Parallel Computing, Data Mining, Semantic Web etc. It prepares the students to take up a career in the highly competitive IT industry as well as carry out research and development. Regular assignments along with minor and major research projects provide the students a triple advantage of gaining sound theoretical concepts, sophisticated program development, and research experience. The curricula are updated from time to time, to dynamically align with the changing needs of the industry, to ensure that students not just imbibe academic concepts but are equipped with the analytical and decision-making skills to be the leaders in the competitive professional environment. Finally, our students are careful listeners and are self-motivated, have accurate views and are keen observers. We have been striving continuously to match the students with their dream jobs, resulting in a win-win situation for the students as well as for hiring organization. We look forward to foster and grow old relationships and welcome new recruiters for a long-lasting, mutually beneficial and friendly relationships.

> NEELIMA GUPTA PLACEMENT ADVISOR

THE DEPARTMENT

THE DEPARTMENT



The Department of Computer Science was established at the University of Delhi, in the year 1981, with the objective of imparting quality education in the field of Computer Science. With rapidly evolving technology and continuous need for innovation, the Department has been producing quality professionals, holding important positions in the Information Technology industry both in India and abroad.

The Department started Master of Computer Applications (MCA) programme in the year 1982, which was among the first such programmes in India. The MCA programme focuses on providing a sound theoretical background as well as good practical exposure to students in the relevant areas. It is intended to provide a modern, industry-oriented education in applied computer science. It aims at producing trained professionals who can successfully meet the demands of the IT industry. They obtain skills and experience in up-to-date approaches for analysis, design, implementation, validation, and documentation of computer software and hardware.

The Department started M.Sc. Computer Science programme in the year 2004 with the aim to develop core competence in Computer Science and to prepare the students to take up challenges of research and development. The students have the ability to apply a high level of theoretical expertise and innovation to complex problems and application of new technologies. M.Sc. has been designed to teach the mathematical principles of specification, design and efficient implementation of both software and hardware. The Department also offers Doctor of Philosophy (Ph.D.) programme aimed at producing quality researchers in several diverse branches of Computer Science.

Apart from these, the Department coordinates B.Sc.(Hons.) Computer Science and other courses taught at the constituent colleges of University of Delhi.

FACULTY OF DEPARTMENT

Vasudha Bhatnagar

Professor Head of the Department MCA, University of Delhi Ph.D., Jamia Millia Islamia

Naveen Kumar

Professor M.Tech. (CS), IIT Delhi Ph.D., IIT Delhi

Neelima Gupta

Professor M.Tech. (CA), IIT Delhi Ph.D., IIT Delhi

Punam Bedi

Professor M.Tech. (CS), IIT Delhi Ph.D., University of Delhi

S.K. Muttoo Professor M.Tech. (CS&DP), IIT Kharagpur, Ph.D., University of Delhi

P.K. Hazra Associate Professor B.E. (ETE), Jadavpur University M.E. (CSE), Jadavpur University



P.K.Hazra

(From right to left: S.K. Muttoo, Naveen Kumar, Neelima Gupta, Punam Bedi, Vasudha Bhatnagar)

ADHOC/GUEST FACULTY

Sapna Varshney Assistant Professor MCA, Banasthali Vidyapith M.Tech. (IT), GGSIPU Ph.D., Jamia Millia Islamia

Megha Khandelwal Assistant Professor M.Tech. (CSE), GGSIPU

Nisha Assistant Professor MCA, University of Delhi

Roni Chakre Assistant Professor M.Tech. (IT), DTU

Gopal Singh Rawat Assistant Professor M.Sc. (Informatics), University of Delhi, M.Tech. (CST), JNU

Archana Singhal Associate Professor, IP College for Women M.Sc., University of Roorkee Ph.D., JNU

Sonika Arora Assistant Professor, SSCBS Ph.D., University of Delhi















N.K. Chadha Guest Faculty Post-Doctorate, University of Virginia, USA

N.K. Oberoi Associate Professor M.Com., M.Phil.

ACADEMIC PROGRAMMES

MCA PROGRAMME

Master of Computer Applications (MCA) is a full-time six-semester programme, which includes one semester of professional training in the industry. The objective of MCA programme is to impart quality education in Computer Science and its applications so that students are well prepared to face the challenges of the highly competitive IT industry. The course structure ensures overall development of the students while concentrating on imparting technical skills required for an IT profession. No wonder, today after more than three decades of its existence, its alumni are holding important positions in the IT industry and academics in India and abroad.

ADMISSION PROCEDURE FOR MCA PROGRAMME

The intake in this programme are graduates under 10+2+3 scheme of examination of University of Delhi or an equivalent examination with at least one paper in Mathematics and another in Computer Science/ Mathematics/ Operational Research/ Statistics with minimum 60% marks in aggregate. The current batch of MCA has students graduated from B.Sc. (Hons.) Computer Science, BCA, B.Sc. (Hons.) Mathematics, B.Sc. (Hons.) Physics, and B.Sc. (Hons.) Electronics.

The seats are filled on the basis of National Level written examination, followed by Interview.



Part-I Semester I

- 1. MCA 101 Object Oriented Programming
- 2. MCA 102 Systems Programming
- 3. MCA 103 Statistical Techniques
- 4. MCA 104 Computer Systems Architecture and Lab.
- 5. EL1 One elective out of the following a. MCA 105 (a) – Economics
 - b. MCA 105 (b) Organizational Behavior
 - c. Outside Department Elective (preferably Department of Mathematics, Statistics, and Operational Research)
- 6. MCA 106 Technical Communication

Part-I Semester II

- 1. MCA 201 Data Structures and File Processing
- 2. MCA 202 Discrete Mathematics
- 3. MCA 203 Computer Graphics
- 4. MCA 204 Data Communication and Computer Networks
- 5. EL2 One elective out of the following
 - a. MCA 205 Fundamentals of Accounting and Finance
 - b. Outside Department Elective (preferably Department of Mathematics, Statistics, and Operational Research)

Part-II Semester III

- 1. MCA 301 Design and Analysis of Algorithms
- 2. MCA 302 Software Engineering
- 3. MCA 303 Database Systems
- 4. MCA 304 Automata Theory
- 5. MCA 305 Operating Systems

Part-II Semester IV

- 1. MCA 401 Compiler Design
- 2. MCA 402 Information Security
- 3. MCA 403 Network Programming
- 4. EL3 Elective within the Department
- 5. EL4 Elective within the Department
- Students shall register for the electives
- amongst those offered by the Department from time to time, out of the following list

List of Department Electives for Part-II Semester IV

- a. MCA 404 Data Base Applications
- b. MCA 405 Advanced Operating Systems
- c. MCA 406 Electronic Commerce
- d. MCA 407 Numerical Computing
- e. MCA 408 Computational Linguistics
- f. MCA 409 Combinatorial Optimization

Part-III Semester V

Students shall register for at least 20 credits amongst those electives offered by the Department from time to time out of the following list:

List of Electives for Part-III Semester V

- a. MCA 501 Modeling & Simulation
- b. MCA 502 Visual Programming
- c. MCA 503 Data Mining
- d. MCA 504 Computational Intelligence
- e. MCA 505 Artificial Intelligence
- f. MCA 506 Digital Image Processing & Multimedia
- g. MCA 507 Neural Networks
- h. MCA 508 Combinatorial Optimization
- i. MCA 509 Software Quality Assurance & Testing
- j. MCA 510 Machine Learning
- k. MCA 511 Embedded Systems
- I. MCA 512 Cryptography
- m. MCA 513 Programming Paradigms
- n. MCA 514 Database Systems and Implementation
- o. MCA 515 Human Resource Management
- p. MCA 516 XML and Databases
- q. MCA 517 Satellite and Mobile Communication Networks

Part-III Semester VI

A Full-time 6-month industrial training (Placement via campus interviews). MCA 601 - Project

M.SC. COMPUTER SCIENCE PROGRAMME

M.Sc. Computer Science programme, introduced in 2004, is a four-semester programme which aims at imparting quality education in core Computer Science so that the students are prepared to face the challenges of the highly competitive IT industry as well as carry out research and development. The objective of the programme is to imbibe sound knowledge of theory and hands-on practical skills in various areas of Computer Science. Taking into account the Computer Science curriculum that the students have undertaken at the graduate level, it aims at imparting advanced courses in Computer Science.

The programme structure includes a minor project in the third semester followed by a major project in the final semester which helps in the development of research skills in the areas of their interest.

ADMISSION PROCEDURE FOR M.SC. COMPUTER SCIENCE PROGRAMME

The intake in this programme are graduates with 10+2+3 scheme in B.Sc. (Hons.) Computer Science of University of Delhi/equivalent examination from any other University or B. Tech. Computer Science, or B. Sc. (Prog.) Applied Physical Sciences / B. Sc. (Prog.) Mathematical Sciences with Mathematics and Computer science from University of Delhi or any Bachelor's Degree with at least six Computer science papers and at least two Mathematics papers with minimum 60% aggregate marks in graduation. 50% seats are reserved for the meritorious students of B.Sc. (Hons.) Computer Science programme of University of Delhi. Remaining 50% of the seats are filled on the basis of National Level written examination, followed by Interview.



COURSE STRUCTURE (M.SC.)

Part-I Semester I

- 1. MCS 101 Design & Analysis of Algorithms
- 2. MCS 102 Artificial Intelligence
- 3. MCS 103 Information Security
- 4. MCS 104 Database Systems & Implementation
- 5. MCS 105 Computational Intelligence

Part-I Semester II

- 1. MCS 201 Compiler Design
- 2. MCS 202 Advanced Operating Systems
- 3. MCS 203 Data Mining
- 4. MCS 204 Advanced Computer Networks
- 5. EL1 One elective out of the following
 a. MCS 206 Numerical Computing
 b. MCS 207 Combinatorial Optimization

Part-II Semester III

- 1. MCS 301 Minor Project
- 2. EL2 Elective within the Department
- 3. EL3 Elective within the Department
- EL4 Elective within/outside the Department (preferably Departments of Mathematics, Statistics & Operational Research)

List of Elective Courses for Part-II Semester III

- MCS 302 Digital Image Processing & Multi-media
- 2. MCS 303 Neural Networks
- MCS 304 Software Quality Assurance & Testing
- 4. MCS 305 Machine Learning
- 5. MCS 306 Embedded Systems
- 6. MCS 307 Cryptography
- 7. MCS 308 Distributed Computing
- 8. MCS 309 Modeling and Simulation
- 9. MCS 310 Special Topics in Computer Networks
- 10.MCS 311 Special Topics in Data Mining
- 11. MCS 312 Special Topics in Theoretical Computer Science
- 12. MCS 313 Special Topics in Information Security
- 13. MCS 314 Special Topics in Soft Computing
- 14. MCS 315 Special Topics in Database System
- 15. MCS 316 Special Topics in Artificial Intelligence
- 16. MCS 317 Special Topics in Computational Intelligence

Part-II Semester IV

1. MCS - 401 Major Project

OUR PAST RECRUITERS

This further goes on to show the confidence the industry has in us and the relationship we share with them. Companies where our alumni are placed reads like a who's who of the IT industry. Some of the companies and institutions where our alumni are placed are:





CERTIFICATIONS

Following are the few certification courses done by our students -

- C via Spoken Tutorials
- C++ via Spoken Tutorials
- Python via Spoken Tutorials
- Master Diploma in Computer Information & System Management (duration: 15 Months)
- Python course by Multisoft Systems.
- Java from Ducat, Gurugram
- NPTEL Introduction to Mobile Applications
- Coursera Neural Network and Deep Learning
- Core Java Certification
- Web Development through Internshala VTC
- Development through NPTEL Online
- CCNA (Cisco Certified Networking Academy)
- Android Application Developer
- CISCO Network Design and Implementation
- Java for Android authorized by Vanderbilt University and offered through Coursera
- Android App Components Intents, activities and broadcast receivers
- Advance Java Programming for Web Development from NIIT
- Programming Certification Course, IIT Madras
- Data Structures and Algorithms Certification Course, IIT Madras
- Android Basics from ISOEH
- PHP Tutorial from SoloLearn
- COBOL(LI)
- CICS(LI)
- Robotics using Atmet Studio
- Coursera Machine Learning Foundations: A Case Study Approach

Apart from the conventional methodologies of classroom teaching, students are required to participate in presentations and projects. This prepares them for the industry by helping them to acquire qualities like teamwork and communication skills.

Following are few of the projects/assignments taken up by the students:

- Development of Department Tech Fest website and event platform.
- Automatic Question Paper Generator Java web app
- Internal Assessment Management System
- Timetable Management System
- Online Examination System in JavaScript, JSP.
- Online Election System
- Attendance Management System
- Software Engineering project on Waterfall model
- Online Shopping System
- Implementation of K-means algorithm using Weka or Shell programming for specified number of times and for a given range of clusters.
- Implementation of Bisecting K-means and comparing the results with that of K-means for the same data set.
- Comparison of performance of NB, KNN and Decision Tree classifier using Weka implementation.
- Implementation of postfix function using C/C++ programming language.
- Implementation of Chat Server using Socket programming (Unix Domain Sockets) to accomplish a lobby between multiple agents in which they can talk and perform other functions like registering, logging in, logging out, checking status etc.
- Implementation of a Chat Server to accomplish web chat between two agents on different platforms using Jade.
- Implementation of cryptographic algorithms like AES, DES, RC4, IDEA, and RSA.

LIST OF ACHIEVEMENTS AND AWARDS

The students of the outgoing batch have demonstrated their skills and talents at every opportunity. This is apparent from the sheer amount of prizes they have won keeping in with the tradition of the department.

Here is the list of a few prizes won by them:

WINNER AT FACEBOOK'S GLOBAL DEVELOPER CIRCLES COMMUNITY CHALLENGE 2018.

26 August 2017 – 3rd position – IIIT, "Code in less" – online programming event.

27 August 2017 - 2nd position - IIIT, "Squizzled" IT quiz.

27 August 2017 - 2nd position - IIIT, "Battle Of Bytes"

27 August 2017 – 2nd position – IIIT, "Code jam" coding event with time constraint.

30 March 2017 – 2nd position – JMI, "Algowls" algorithm-based event.

28 March, 29 March 2017 – 2nd position – JMI, "Quizzical" online IT quiz.

29 March 2017 – 3rd position – JMI, "Begulia" online IT quiz.

28 March 2017 – 1st position – JMI, "Game of Code" coding event.

22 March 2017 – 1st position – Shivaji College (DU), "Play with SQL" database quiz.

8 March 2017 – 1st position – Shahid Rajguru College (DU), "Scavanger Hunt"

7 October 2017 - 2nd position - IGDTUW, "Snake vs Code" coding event.

16 March 2017 - 3rd position - DTU, "IT QUIZ"

17 March 2017 – 1st position – DTU, "Bytes"

17 March 2017 – 1st position – DTU, "Don't know code" algorithm event.

LAN GAMING

8 March 2017 – Shaheed Rajguru College (DU) – 2nd position 20 March 2018 – VIPS – 2nd position 31 January 2018 – Keshav Mahavidhyalaya – 1st position 19 January 2018 – IITM – 2nd position

WORKSHOPS AND SEMINARS ATTENDED

Students of the Department are always keen on learning new things as shown by the seminars and workshops that they attend. Some of the workshops/seminars attended are:

- Android Workshop at Keshav Mahavidyalaya, University of Delhi on 13–14 February 2018.
- Cetpa Big Data and Hadoop seminar, Maharaja Agrasen Institute of Technology on 8 February 2018.
- Workshop on Android Application Development (By Robosapiens) organized in IIT Delhi on 16 October 2017.
- Robotics Workshop (Arduino Basics) at IIT Delhi on 13 October 2017.
- Microsoft Azure Event at Microsoft, Gurgaon on 20 August 2017.
- HTML PHP Node JS Workshop at Coding Blocks, Pitampura on 13–14 August 2017.
- Workshop on R Language (Shaheed Sukhdev College, University of Delhi) on 7 August 2017.
- National Conference on Advancements Electronics and Computer (Ncaeca, 2016).
- National Seminar on Frontiers of Computational Research organized by Indraprastha College for Women on 30–31 March 2015.

OUT OF THE CLASSROOM

Apart from the regular course and projects, the students have showcased their skills outside the classroom. Here are some of the projects done on their own.

- Google Chrome extension to filter Facebook group feeds by keywords (built with ReactJS, JS and Facebook graph API and Chrome extensions API).
- Bleu, a fully featured smart static website generator built with NodeJS.
- FAT filesystem simulation in C++.
- AlGod a gamified competitive coding platform built with NodeJS and C++.
- Commenting platform for static websites (built for Jekyll).
- Partial builds system and helper utilities for Jekyll.
- Multiple other web development projects (frontend and backend) like HoopsVilla.com, game development at Zoohackathon 2017 (using Phaser) PyGame Rotating text.
- Hello Appointment
- Library Management System
- Vanya Jeevan Sanrakshan
- Student Helper An Android App complete with the server side PHP codes and database to help a student keep track of his/her relevant data.
- Home automation with raspberry pi
- Innovation Project: 'Device for the Uniquely Abled', a device for the visually impaired people which aims to help them with the problems of obstacle avoidance and way-finding, while they commute from one place to another.
- Published article for electronics forum.
- 'Puzzle based Alarm Clock' based on MSP430 microcontroller at NSIT, Delhi.
- Group-based co-ordination for information exchange in Ad-hoc networks eClassroom
- H.El.P. (Handheld ELectronic Protection using Arduino boards)
- Students have developed a number of Alexa skills.
- Virtual Chemistry Lab University of Delhi innovation project
- Image Recognition System Django based web application using tensor flow to implement deep learning model.

MORE ABOUT THE DEPARTMENT

LABORATORY FACILITIES

संगणक विज्ञान विभाग DEPARTMENT OF COMPUTER SCIENCE संगणक प्रयोगशाला : COMPUTER LABORATORY दिल्ली विश्वविद्यालय : UNIVERSITY OF DELHI

RESOURCES:

Open Source IDE: Dev C++, TurboC, IDLE, Altova XML Suite 2008, NetBeans 8.2,Eclipse, Android studio, JDK 1.8.0, ADT Bundle for Android, R Studio

Open Source Server: Glassfish

Operating Systems: Windows 8/10, & Ubuntu 16.4

Application Software: Microsoft Office 2010, & Latex

Numerical Computing Software: MATLAB 2014a

Security Tools: Microsoft Security Essential, Windows Defender

Text Editor: Sublime Text Editor

LIBRARY



The students of the Department are affiliated to Central Science Library (CSL). Established in 1981, one of the biggest Science Libraries, CSL provides students with an abundance of resources. It has a collection of over 220,000 volumes of Books and Periodicals.

The website of CSL provides an electronic subscription for approximately 27,088 ejournals of national and international repute.

http://crl.du.ac.in/

DELHI UNIVERSITY COMPUTER SCIENCE SOCIETY

The Department creates an environment for students to take up challenging tasks, bring forth their latent capabilities, discover their full potential, and hence enhances this little yet significant Tech-community that we have here. In order to achieve these goals, a number of activities are organized for students to help them build the traits of teamwork, trustworthiness, and synchronization.

Established in 2005, Delhi University Computer Science Society aims to "build better student-industry interface" by conducting various seminars, conferences, and technical fests thereby helping in narrow down the gap between education and industrial demands.

Since 2005 every year, the Society organizes **SANKALAN**, a two-day technical fest which brings out the technology and the creative spark of the students.

ALUMNI WORKING CLUB

The student community is believed to be incomplete, without the support and encouragement of its alumni. Considering the significance of such a club, DUCS dedicatedly functions to create and maintain a life-long connection between the Institute and its alumni. The Department is proud to have an Alumni Circle amongst whom are those placed in prestigious companies like Amazon, Adobe, Morgan Stanley etc. and some of the distinguished alumni are the founders of the extremely successful Delhi-based start-ups Velmenni and JMoon Technologies. A major task that needs to be carried out every year is blending the new generations into the older ones. Hence, at the beginning of each academic year, a Skit is organized for introducing the new students to their alumni. Besides Skit, events like freshers (Parichay), seminars, workshops, Sankalan-our technical fest serve as the platform for connectivity. Our Alumni contribute by providing the present generation with immense experience and guidance through the placement sessions. They take out time to prepare the students for the grueling placement sessions with study sessions, pep talks, behavioral tips, and give them insights about the working of the industry.

RECENT WORKSHOPS AND SEMINARS

Besides the fun and light environment, the Department also organizes comprehensive Workshops and Seminars. The domain of themes varies from latest trends in the field of IT and global issues and impact of IT activities on them. Following is the list of workshops conducted:

- Workshop on "Save Water" (Dated: 20-04-2018).
- Workshop on "Relaxation Techniques" (Dated: 26-03-2018).
- Workshop on "Stress Management" organized by Mr. Sanjay Kumar Singh (Director), Dimension Education Pvt. Ltd. (Dated: 17-03-2018).
- Talk on "Independent Dependency Tracking in Mobile Ad hoc Network" by Prof. Subhash Bhalla, University of Aizu (Dated: 13-03-2018).
- Talk on "Towards Building a Farm Problem and Diagnosis System for Farmers" by Prof. P. K. Reddy, IIT Hyderabad (Dated: 13-03-2018).
- Talk on "Mobile Computing, Internet of Things and Big Data Analytics for Urban Informatics" by Dr. Anirban Mondal, Asoka University (Dated: 13–03–2018).
- Workshop on "R Programming" (Dated: 12-02-2018).
- Workshop on "Deep Learning and Matlab" (Dated: 20-02-2018).
- Seminar on "An Overview of Research Activities in Yoga and Neuroimaging Lab" (Feb 2018).
- Workshop on "Mera Swachh Karyasthal Saathi Haath Badhana" (Dated: 09-01-2018).
- 'Spoken Tutorial' online tests for students to learn their strengths and weaknesses in Programming were held on 13 Dec 2016, 16 Oct 2017, and 10 April 2018.

STUDENTS INITIATIVES

Srijan: The Student Magazine

"Writing is an exploration. Nothing is known in the beginning, but as we move forward, we learn."

With no doubts, the students of DUCS understand the gist of this quote deeply.

Every year, a team of four editors and a designer, come up with the annual tech magazine: "Srijan". This magazine includes articles, poems, and sketches from students, teachers and alumni.

"Srijan", as the name suggests, is the creation of a doorway letting everyone express views on a wide array of technical as well as nontechnical topics. The magazine encourages students to think beyond the pages of the textbook and brings out their creative side.

STUDENTS INITIATIVES

Student Orientation: The Welcome and The GoodBye!

Amidst a plethora of projects & assignments, we do ensure to have a break for celebrating and interacting with each other. Besides the day to day activities, luncheons, birthday celebrations, DUCS has a culture of celebrating these three fun get-togethers:

Orientation: The teachers and the students of the Department organize an orientation program on the first day of the academic year, to enlighten the new students about the rules and regulations of the Department. The orientation ensures that the best of knowledge is provided to all the new students to carry out their life at the Department with ease.







STUDENTS INITIATIVES

Student Orientation: The Welcome and The GoodBye!

Skit: A welcoming fun event to carve out the actor within each one of us. A group of freshers, totally unknown to each other, is formed and a senior serves as a mentor to them. This event fills the air with humour, excitement, and fun. All seniors and alumni are cordially invited to the event to welcome juniors in the DUCS family.

Fresher's Party: After the skit, a formal event for welcoming the students is organized; Parichay-The Fresher's Party. A theme is adorned by freshers for the party, performances are lined up by them, and food and beverage are served throughout the day to keep the energy going.

Farewell Party: The students bid adieu to all the final-year seniors with great ostentation at this party. Performances, goodbye speeches, presentations made by juniors showcasing their journey at DUCS, farewell titles & souvenirs, all form the perfect ingredients for a nostalgic yet memorable recipe of lives at DUCS.



Festivals:

DUCS is a culture and people at DUCS are family to each other. Following festivals are celebrated with great zeal and vigor:

Teacher's Day: It is important that not only students but our teachers receive a warm environment of appreciation and honour. Hence, students organize a small celebration for thanking the teachers for all the guidance they have provided us with.

Diwali: Every year, seniors and juniors dressed in ethnics gather together celebrate Diwali. Students make Rangoli and perform Laxmi Pooja. Lamps and Candles are lightened throughout the Department. DJ session is organized in the evening to complete the Diwali celebrations.

Holi: The festival of colours is celebrated with vigor and smiles. The Department is painted with colours and students and teachers gather to celebrate this festival together.



Sankalan: Our Tech Fest!

Since its inception in 2005, every year DUCS organizes its annual fest with much enthusiasm and energy. The workforce is not concentrated on one portion of work. Teams are divide headed by a Panel selected by a proper voting method.

Students from various universities come and participate in this two-day event. Renowned people from the IT industry and our alumni placed in various tech giant companies judge and review all the technical events held during the fes After the two days of long grilling experience, students are awarded and appreciated for winning and participating in the fest.

This year, Sankalan has become more special. A new global pre-Sankalan event called "AlGod", which is a self-developed gamified competitive coding platform has been introduced. It supports problems of varying difficulty levels and the activities are fully automated. The user gets new "random" input test case file to solve each time for each question which is generated on a threshold wrong attempts on each problem. The system is built using NodeJs and C++.

Also, a quiz portal has been developed by students for prelims/qualifiers of Sankalan using PHP. For the coding rounds, a Java-based GUI environment has been created which allows us to get responses from users in real-time.



The main **technical events** include:

Algoholics – The event focuses on testing the proficiency of participants in developing algorithms for new problems.

Java Juggling – For the Java Ninja who is not boggled by classes, keywords, threads, interfaces.

Code-A-Thon - A coding marathon to test participants programming prowess.

Spin-A-Web - Participants are asked to curate a website with their own vision but following a particular theme.





BrainSpark -The participating teams need to survive a set of aptitude, reasoning and logical questions.

MakeApp – A mobile app development event where the participating teams will be marked on the design, functionality, features, and usability of their app.

Mind Matters – A Technical quiz where participants are judged on the basis of their clarity to the concepts related to computer science fields. *Select* * *from BRAIN* – A challenging event that explores the domain of database with SQL, XQuery, and DBMS. Participants are asked to solve problems in a given domain.

DUCS Coding Cup – an overnight coding event where students are asked to solve some tricky code problems, and they can code them in any programming language

Non-Technical Events include:

Online Events:

Alacrity: Online Photography Competition. A theme is announced each week and winners of each week are called for On-spot competition. *Quriosity*: Online Puzzle Competition. Each day at a set time, a question is released and marks are given and scoreboard is announced every week.

Chakravyuh: Online 72 hours Puzzle competition. A picture/video serves as a clue for a word and player is supposed to guess that word(s).

Offline Events:

JAM - One minute is given and an activity is performed. TechnoSpeak -The students present their views on a chosen perspective on a given theme. This year, the theme was information security. Turncoat - Participants are provided with debatable & trending technical topics where they show off their skill to express their views in favor of topic and against it too.

Intra-Sankalan:

The DUCS Society also conducts INTRA-SANKALAN, where the students of the Department compete among themselves in many technical and non-technical events.

DUCS Coding Club:

DUCS is an active body which runs on the principle of building and developing perceptive brains. One such student initiative is DUCS Coding Club. This student association has people of all levels; be it juniors, seniors or alumni. Everyone helps each other to learn the new trends and technologies.

Together this year, the club was able to make some of the best achievements, which include:

More than 20 students got a HacktoberFest 17 shirt for creating pull request and contributing to tech society by Digital Ocean. About a dozen people were able to learn the Amazon Alexa technology and created their own skills which are now live on Alexa Skill Store. More than five students received Udacity-Google India Challenge Scholarship into various tracks including Android, Front-end Web Development.

Students under this umbrella have learned a lot through exploration and experience. Together, students attend sessions at various places. Not only outside, but students conduct sessions amongst themselves and in their colleges to grow everyone around them.

DUCS ALUMNI

Today, the alumni of Department of Computer Science have distinguished themselves in the industry through sheer talent, commitment and hard work. We are proud of our talented and successful DUCS alumni who have made a mark in India and abroad and we wish to follow in their footprints. A few amongst them are:

C. P. MURALI	PRADEEP MATHUR
Investor & Advisor	Vice President
iMedrix, Bangalore	Capgemini, UK
MCA Batch: 1983 - 1986	MCA Batch: 1984 – 1987
GULSHAN KUMAR	RANJAN DHAR
Vice President & BU Head	Partner Director
Nagarro, India	Alliances & Channels, Oracle
MCA Batch: 1985 - 1988	MCA Batch: 1986 - 1989
S KUMARAN Country Head – India AllSight Inc. MCA Batch: 1995 – 1998	Dr. PUNAM BEDI Professor Department of Computer Science, University of Delhi Ph.D. 1999, University of Delhi
Dr. S.K. PAL	SAURABH GARG
Senior Scientist	CTO
DRDO	Velmenni
Ph.D. 2006, University of Dehi	MCA Batch: 2012 - 2015
	Investor & Advisor iMedrix, Bangalore MCA Batch: 1983 - 1986 GULSHAN KUMAR Vice President & BU Head Nagarro, India MCA Batch: 1985 - 1988 S KUMARAN Country Head - India AllSight Inc. MCA Batch: 1995 - 1998 Dr. S.K. PAL Senior Scientist DRDO

PLACEMENT ADVISOR AND COORDINATORS

Prof. Neelima Gupta

Faculty Placement Advisor Mobile No.: 9818553554 Email id: ngupta.cs.du@gmail.com

MCA Placement Coordinators

Shubhangi Mittal Mobile No.: 9968460849 Email id: shubhangi.mca16.du@gmail.com

Aditya Kumar Mobile No.: 8271550859 Email id: aditya.mca16.du@gmail.com

Prabal Partap Mobile No.: 7503808079 Email id : prabal.mca16.du@gmail.com

M.Sc. Placement Coordinators

Abhilasha Gupta Mobile No.: 9717521711 Email id: abhilasha.mcs17.du@gmail.com

Ayush Malik Mobile No.: 8447851794 Email id: ayush.mcs17.du@gmail.com

Atul Mittal Mobile No.: 9643508474 Email id: atul.mcs17.du@gmail.com

For further correspondence, contact: ducs.placement.2019@gmail.com



DEPARTMENT OF COMPUTER SCIENCE UNIVERSITY OF DELHI DELHI-110007

PHONE NO. -: 011-27667059, 011-27667591

Website -: http://cs.du.ac.in