

Department of Computer Science: Annual Report Year 2016-2017

This academic session was full of events for the Department of Computer Science. Following projects/activities/workshops were organized in this session.

1. **In-House Software Development Program:** Under this very prestigious and ambitious program, the department's first in-house software for Time Table Management Application was implemented and put to real use for managing the college timetable.
2. **Internship Projects:** The department continued with its internship project (in its second phase): **W2TM** for Website Testing, Training and Maintenance.
3. **Research Projects:** An Innovation project funded by DU, has been completed successfully. Highlight was that the project won "**The Best Poster Award**" at the research display in University Convocation 2017. The Mobile Application to facilitate easy public pooling is available for download and usage at Google Playstore by the name "**HUMSAFAR**". Teachers participating were: Dr. Pooja Vashisth, Dr. Baljeet Kaur, Dr. Suruchi Bhatia (APP. PSHY.) and Dr. Biplav Srivastava (from IBM as mentor)
4. **NATIONAL CONFERENCE ON ADVANCE IN COMPUTER AND INFORMATION TECHNOLOGY(NCACIT-2016) :** A UGC and DRDO sponsored National Conference was organised on 19-20th December , 2016. Proceedings (Chief Editor: Dr. Shweta Tyagi) were also published with a valid ISBN number. Convenor: Dr. Pooja Vashisth, Co-convenor: Dr. Baljeet Kaur, Organising Secretary: Dr. Shweta Tyagi, Treasurer: Ms. Mansi Sood, Organising committee member: Ms. Seema Rani. Speakers included eminent Academicians and Industrialists.
5. **THE NEWS BYTE:** The first edition of the annual newsletter of the computer science department THE NEWS BYTE was released during the national conference. Editors are: Dr. Pooja Vashisth and Tanya Jain (student, B.Tech CS).
6. **An SPM App:** made by department's collaboration with the firm **I-Made** on Kryptosis platform is live on Google play store from 16th Feb 2017. This programme is under department of telecomm, under digital India initiative taken by the Govt. of India. The app. was launched in college premises on 16th Feb 2017. It's a part of driving cashless campus initiative. Coordinators: Dr. Pooja Vashisth and Ms. Anuradha Singhal
7. **Online Software Training Workshops:** were organised by department throughout 2015-16 and onwards, coordinated by Dr. Pooja Vashisth. This work was done in association with the Spoken Tutorial Project of IIT Bombay and the National Mission on Education through ICT, funded by MHRD, Govt. of India.
8. **National Seminar 2016: On "Emerging Trends and Technologies" on 22nd Feb 2016.**
Speakers: Dr. Naveen Garg (Prof, IITD); Dr Biplav Srivastava (Sr. Scientist, IBM); Dr Sushila Madan (Associate Professor, LSR)

Student Participation and Activities

1. **Department's 2-day inter-university Annual Tech Fest; SANGTARAASH 2017:** altogether 21 activities organised in parallel. Organised on 22-23 Feb 2017. Faculty

coordinators: Ms. Pratibha, Dr. Shweta Tyagi, and Ms. Shaheen and Student Coordinators: Deepali Singh and Ayushi Jain.

2. Dept. of Computer Science and Python Society of India (PSSI) in collaboration with IIT Bombay, **conducted one day free workshop** to make students familiar with the new upcoming **language of Python**. Total 122 students were present and attend the same. The event was organised by the CS ACM student chapter of the college on 17th September 2016. Coordinator: Dr. Baljeet Kaur
3. Organized a **ten days PHP Summer Workshop** in College 2016 from 1-10 June 2016 for the students of college and outside. Coordinator: Ms. Anuradha Singhal, Ms. Pratibha
4. For the first time, the department organised a free for all **Computer Literacy Program**, wherein students were imparted **knowledge about basic IT skills by two Trainers (as Student Interns for the summer program)**. The program was carried out in the first three weeks of July 2016. Coordinator: Dr. Pooja Vashisth
5. The department hosted a **state level Robotics Workshop in collaboration with RAIF, a Chennai based organization** on 23th August 2016. Coordinator: Dr. Pooja Vashisth
6. For the first time, the department **hosted a state level Robot Football Championship called Robotic Premier League (RPL 2016)** in collaboration with RAIF, a Chennai based organization on 24th August 2016. Coordinator: Dr. Pooja Vashisth, Student Coordinators: Varsha and Yamini
7. Organized a **talk on Cloud Computing by Mr. Danny Gupta**(A Design architect **working in Cloud Innovation Lab for IBM Canada**) at SPM College on 11th April 2016. Coordinator: Ms. Seema Rani
8. Organised a **Seminar in association with IEEE Student Branch**. This seminar was held on 14th September at 11:30 A.M attended by 100 students. Coordinator: Ms. Priyanka Rathee
9. Talk on **“Digital Transformation”** on 19th January 2017. Speaker: **Dr. Ritukar** (Director, Landmark). Coordinators: Ms. Pratibha, Dr. Shweta Tyagi, and Ms. Shaheen
10. Organized talks on **“Careers in IT”** on 6th February 2017 and 13th February 2017 for the students of B.Sc.(H) Computer Science. Coordinators: Ms. Pratibha, Dr. Shweta Tyagi, and Ms. Shaheen
11. **Ms. Pritika Mathur**, a student of Computer Science Department has successfully **designed a mobile app. of the college website**
12. **Talk on Preparing for Interview, Careers in Animation:** These are planned for 10 March 2017. Coordinators: Ms. Aakanksha Bansal, Ms. Ashema.

Faculty achievements in the year 2016-17

a. Name of the faculty: Dr. Pooja Vashisth

- I received the Top Colleges CTOs award at the Digital Edge ICT Conclave on Education 2016, supported by Ministry of Electronics and IT on 11th November 2016 at New Delhi.
- Research Paper: A fuzzy hybrid recommender system, Journal of Intelligent & Fuzzy Systems 2017 ISSN 1875-8967 (E)
- Conference Proc. Full Length Paper , HumSafar: An Android Mobile Application Enabling a Safer Way to Travel, the proceedings of International Conference on Parallel, Distributed and Grid Computing included in IEEEExplore 2016
- Participated in the National Seminar on “Soft Computing Techniques” in DDU in 2016.
- Recently I have attended an International workshop organized by JNU on “Big Data 2016”
- Participated in a workshop on “Cyber security” in 2017 in Hansraj College, Delhi University.
- Participated in a workshop on IEEE “Shine Rural India” in 2017 in IIT Delhi.

b. Name of the faculty: Dr. Baljeet Kaur

- Conference Proc. Full Length Paper , HumSafar: An Android Mobile Application Enabling a Safer Way to Travel, the proceedings of International Conference on Parallel, Distributed and Grid Computing included in IEEEExplore 2016
- Participated in the National Seminar on “Soft Computing Techniques” in DDU in 2016.
- attended an International workshop organized by JNU on “Big Data 2016”
- Participated in a workshop on “Cyber security” in 2017 in Hansraj College, Delhi University.
- Participated in a workshop on IEEE Delhi Section “Shine Rural India” in 2017 in IIT Delhi.

c. Name of the faculty: Dr. Shweta Tyagi

- Pratibha Yadav and Shweta Tyagi, Hybrid Fuzzy Collaborative Filtering: An Integration of Item-based and User-based Clustering Techniques, Int. J. of Computational Science and Engineering, Inderscience (Accepted)
- Book Edited: Proceedings of National Conference on Advances in Computer and Information Technology, Department of Computer Science, Shyama Prasad Mukherji College, University of Delhi, New Delhi, Shweta Tyagi, Baljeet Kaur and Pooja Vashisth (Eds.), 2016, ISBN: 978-93-5258-249-5

- Article in Newsletter: Intelligent Machines to Imitate Human Learning, Shweta Tyagi, The News Byte, Newsletter, Department of Computer Science, Shyama Prasad Mukherji College, Vol. 1, 2016.

d. Name of the faculty: Ms. Pratibha Yadav

- Pratibha Yadav and Shweta Tyagi, Hybrid Fuzzy Collaborative Filtering: An Integration of Item-based and User-based Clustering Techniques, Int. J. of Computational Science and Engineering, Inderscience (Accepted)

e. Name of the faculty: Ms. Jaya Gera

- Jaya Gera, Harmeet Kaur, "Dynamics of Pledge Behaviour of Crowd Funding projects", In the International Journal of Information Technology Project Management (IJITPM) , volume 8, issue 1, pp 72-86, 2017, ISSN: 1938-0232, EISSN: 1938-0240, DOI: 10.4018/IJITPM.20170101
- Jaya Gera, Harmeet Kaur, "Recommending Investors using Association Rule Mining for CrowdFunded projects", In proceedings of 7th international conference on Advances in Communication, Network, and Computing – CNC 2016, Communication and Power Engineering, De Gruyter, pp 27-43, 2016, ISBN: 978-3-11-046960-8.

f. Name of the faculty: Ms. Seema Rani

- Published a research paper on "Next Release Problem: Emerging trend of Requirement Engineering", International Journal of Recent Innovation in Engineering and Research ISSN: 2456 – 2084, Volume 2 Issue 2, February 2017, Page No. 58-65
- Participated in a one week Faculty Development Program on Algorithms held at Department of Computer Science, University of Delhi in collaboration with ACM India Education and ACM Delhi NCR Chapter, from 7th July 2016-13th July 2016.
- Participated in the workshop on LaTeX organized by the Department of Mathematics, SPM College (University of Delhi) on 27th September, 2016
- Participated in the IEEE All India Student-Young Professional-Women in Engineering Congress (AISYWC) 2016 held at LNMIIT, Jaipur from 7th to 9th October 2016.
- Attended a Talk organized by IEEE on "Standards, Global Practices and Latest Trends in Research Paper Publications" by Dr. Harry Blom, Vice President, Computer Science, Mathematics and Publishing Development, Springer, New York(USA) at Bharti Vidyapeeth Educational Campus, New Delhi on 5th November, 2016.
- Worked as a core member in IEEE SIGHT Track and HAM RADIO SESSION at MTTT IMARC (International Microwave and Research Conference) and APMC (Antenna Propagation and Microwave Conference) on 5th -8th December 2016.

g. Name of the faculty: Ms. Aakanksha Bansal

- Published 3 papers in International Journal and 3 papers in International Conference (Webinar).

- Impact of online selling on physical Retail in India- Akanksha Bansal and Monika Arora, Journal
- A Comprehensive study on Intranet Portals of various Organizations- Akanksha Bansal, Sonia Pahuja and Pooja Sharma, Journal
- Time Table Generation using Genetic Algorithm- Akanksha Bansal and Manvi Gupta, Journal
- Ubiquitous Computing: Aura and its spectrum- Akanksha Bansal and Manvi, II International Conference (Webinar)
- Intranet Portal and its Security Issues: Akanksha Bansal, Sonia, Pooja, Priyanka, II International Conference (Webinar)
- Green Technology: A Sustainable Development: Akanksha and Monika Arora, II International Conference (Webinar)

Achievements:

- Akanksha and Manvi awarded with Best Presentation and Knowledge sharing Award.
- Sonia, Pooja and Akanksha awarded with Mitra Award.
- Akanksha Bansal worked as Editor in Webinar and also hosted the Webinar.
- Akanksha with a team of 5 students of Computer Science Department namely Anjali Bansal, Manisha Vashisth, Anchal Dua, Divya Singhal, Sneha Bharti created a Time Table software for college.

h. Name of the faculty: Ms. Mansi Sood

- Published a paper, titled “A survey on Existing Crowdsourcing Systems” in **National Conference on Advances in Computer and Information Technology 2016 (NCACIT’16)**
- She attended a one week faculty development programme on Algorithms, conducted by Department of Computer Science, University of Delhi, from 7th July to 13th July 2016.
- She also attended a workshop on Latex, conducted by department of Mathematics, SPM College, University of Delhi.

i. Name of the faculty: Ms. Reema Thareja

RESEARCH PUBLICATIONS:

- Pahwa P., Raina S., Satija T., Sharma B., Thareja R., “Information Security Using Cryptography”, National Conference on Advances in Computer and Information Technology (NCACIT) – 2016, pp 99-103, 2016.
- Sharma S., Johri A., Nim S., Sudiksha, Thareja R., “Sentiment Analysis: Statistical and Linguistic Approach”, National Conference on Advances in Computer and Information Technology (NCACIT) – 2016, pp 21-26, 2016.
- Sharma C., Gupta R., Singhal K., Goel P., Thareja R., “Review Techniques of Knowledge Mining”, International Journal of Computer Science and Information Technologies (IJCSIT), Volume 8, issue 1 , 2017, 105-108, ISSN: 0975-9646.

BOOKS PUBLISHED:

- Computer Programming (JNTU Kakinada), Oxford University Press, 2016, ISBN:9780199474158
- Programming and Data Structures II, Oxford University Press, 2016, ISBN:9780199470594
- Course on Computer Concepts, Oxford University Press, 2016, ISBN 9780199469390

STUDENT'S WORKSHOP CONDUCTED:

- Two day workshop conducted at G.H.R.C. Rasoni College, Nagpur on 16th and 17th September 2016.

j. Name of the faculty: Ms. Sonia Kumari

- Participated in one week Faculty Development Program on Algorithms organized by ACM India Education and ACM Delhi NCR Chapter from 7th July, 2016 to 13th July 2016.
- Participated in the workshop on Latex organized by the Department of Mathematics, SPM College (University of Delhi) on 27th September, 2016.

k. Name of the faculty: Ms. Shaheen Ishrat

- Neha Goel, Ruchi Tanwar and Shaheen Ishrat, "Knowledge Pool: An Ideal Platform for Student-Teacher Interaction", National Conference on Advances in Computer and Information Technology (NCACIT) – 2016, pp 53 -59, ISBN: 978-93-5258-249-5.
- Bhavya Gupta, Shaheen Ishrat, Ritu Swami and Parul Singh, "Concurrency Control in Online Event Registration", National Conference on Advances in Computer and Information Technology (NCACIT) – 2016, pp 66 -72, ISBN: 978-93-5258-249-5.
- Participated in the Workshop on LaTeX organized by the Department of Mathematics, SPM College (University of Delhi) on 27th September, 2016.

l. Name of the faculty: Ms. Anuradha Singhal

- Anuradha Singhal, Punam Bedi, Local Binary Pattern Operator based Steganography in Wavelet Domain :2016, Intl. Conference on Advances in Computing, Communications and Informatics (ICACCI), Sept. 21-24, 2016, Jaipur, India, ISBN: 978-1-5090-2028-7 pp 831-836

m. Name of the faculty: Ms. Priyanka Rathee

- Rathee Priyanka, Rishipal Singh, and Sushil Kumar. "Performance Analysis of IEEE 802.11p in the Presence of Hidden Terminals." Wireless Personal Communications: 1-18, 2016.
- "Internet and web programming" as a study material for GJUS&T, Author : Ms. Priyanka Rathee.