Aryabhatta College

Department of Computer Science

(Annual Report for the Academic session 2023 to 2024)

1) Name of Teacher in Charge Dr. Sonal Linda

2) Brief details of Faculty members
   1. Dr. Ranjan Kumar, Associate Professor
   Dr Ranjan Kumar is Assistant Professor at Department of computer science since September 2005. He did his MCA from Department of Computer Science, University of Delhi and Ph.D. from M.U., Bodhgaya. He has worked as Teacher-in-charge in Computer Science Department from 2005 to 2015. His area of interest are Theory of Computation, Data Science, Machine Learning, and Database. He has presented may papers in various National and International conferences. He has also published many research papers in reputed journals. He has also contributed as convener or member in various committees of the college such as Building Committee, PF Committee, Workload Committee, Website Committee, Academic Planning Committee, Research Publication and Extension Committee, etc.

   2. Dr. Priti Jagwani , Associate Professor
   Dr. Priti Jagwani is an alumni of IIT Delhi. She has received her M.Tech and Ph.D. from IIT Delhi. Currently she is serving as assistant professor in dept. of computer science, Aryabhatta College, University of Delhi. She has served the academia for more than 15 years. She has published many papers with Springer, IEEE and Inderscience publishers. She is also working as a reviewer for many conferences of repute and presented her research papers in international conferences at Japan and China. She is the recipient of prestigious Top 50 Women in Education Leaders award (2019) by World Education Congress. She has been associated with National Council for Promotion of Sindhi Language (NCPSL) as Computer Expert. Under this initiative she has delivered many talks for enrichment of Sindhi Language. She has also delivered more than 100 lectures for CEC through VYAS channel since 2019.

   3. Dr. Sonal Linda, Assistant Professor
   Dr. Sonal Linda is Assistant Professor at Department of computer science since October 2015. She served as TIC, Computer Science Department during 2017-2018 and 2019-2020. She did her B.Sc. in Computer Science from St. Xavier's College Ranchi, Jharkhand. She did her MCA, M. Tech and Ph.D. in Computer Science from Jawaharlal Nehru University, New Delhi. She served in various committees and has 6 years of experience in teaching and research. She has published 2 SCIE indexed International Journals research papers. She has presented and published 3 International Conferences research papers. She has received best paper award in an

International Conference. Her areas of interest are Artificial Intelligence, Machine Learning, Data Mining, Database Management System.

4. Ms. Mona Adlakha , Assistant Professor

Ms. Mona Adlakha is currently serving as an Assistant Professor in the Department of Computer Science, Aryabhatta College (University of Delhi) since July 2016. She graduated from St. Stephen's College (Univ. of Delhi) in 1995 with a B.Sc. (Hons) in Physics. In 1998 she completed her Masters in Computer Applications (M.C.A.) from Kurukshetra University and started her career in the software industry. At Aithent Technologies Pvt. Ltd (erstwhile Software Services International Pvt. Ltd.) she worked in various projects in the banking & finance, insurance, healthcare and business solutions. In August 2002 she joined as Lecturer at Kalinda College (University of Delhi) to contribute to academia. Later she joined as Assistant Professor at Ram Lal Anand College (University of Delhi) and served there from August 2006 to September 2013. During this time, she completed her M.Phil. form Madurai Kamraj University in May 2009. She joined Maitreyi College (University of Delhi) from July 2014 to August 2015. She has also served as a Guest faculty for undergraduate and post graduate students in few colleges of University of Delhi.In the past 18+ years she has taught various papers in computer science to undergraduate and post graduate students. She has authored chapters for IGI Global (USA) & CBSE and lessons for Institute of Life Long Learning (ILLL), University of Delhi. Her areas of interest include database management systems, software engineering, machine learning and information security. At Aryabhatta College she has been actively involved in the functioning of the Website Committee and NAAC Committee, among others. As Convener/ Co-Convener of TechPioneers (Computer Science Society) she has been instrumental in building the foundation of the society. Ms Adlakha is an important member and key resource person in the newly formed Training Team at Aryabhatta College. She is a Certified Digital Teacher by ICT Academy.

5. Dr. Deepak Sharma Assistant Professor

Dr. Deepak Sharma is an Assistant Professor at the Department of Computer Science, Aryabhatta College, South Campus, University of Delhi, India. He was awarded with prestigious Indraprastha Fellowship for pursuing doctoral research in Guru Gobind Singh Indraprastha University, Delhi, India. He received his bachelor degree in computer applications from Guru Nanak Dev University, Amritsar, Punjab, India, A Five star rated university. He received his master's degree in computer applications from Guru Gobind Singh Indraprastha University, Dwarka, Delhi, India. He received his master's degree of technology in computer science engineering from Maharshi Dayanand University, Rohtak, Haryana, India and doctorate degree in computer (software engineering) from the University School of Information, communication Technology, Guru Gobind Singh Indraprastha University, Delhi, India. He has received various research survey awards from more than 10 different Government departments of Government of India. He received foreign travel grant for IEEE international conference from Guru Gobind Singh Indraprastha University, Delhi, India. His research interests are in software engineering, testing, improving software quality, statistical and adaptive prediction models, software metrics, soft computing, IOT, Blockchain and the definition and validation of software metrics and endangered languages. He has published various research papers in SCI, ESCI, SCI-E, SCOPUS indexed international journals and conference proceeding's. He is editorial member of several international Journals. He is a senior reviewer of several international and national IEEE and SPRINGER Scopus indexed Journals and conference proceeding's. He recently chaired several technical sessions of several international and national IEEE and SPRINGER Scopus indexed conferences.

6. Ms. Neha Kumari , Assistant Professor

Ms. NEHA KUMARI is Assistant Professor at Department of computer science since July 2017. She did MCA from IGNOU. She has more than 12 year's year of experience in teaching. She has worked as Assistant Professor at Dept. of computer science, Rajdhani college, DU on Ad-hoc basis from January 2013 to july 2015 and july 2016 to june 2017 also Worked as Guest Faculty(B.Tech) at Rajdhani College, University of Delhi from August 2015 to December 2015. She has Worked as Guest faculty at Atma Ram Sanatan Dharma College, University of Delhi from July 2011 to April 2012 & january2016 to April 2017, and also Worked as a faculty (BCA & MCA) at study center of IGNOU, Vikaspuri from Jan 2009 to Dec 2011. She has published six research papers in National and International Journals.

7. Mr. Hemant Kumar, Assistant Professor

Mr. Hemant Kumar is an Assistant Professor in the Department of Computer Science at Aryabhatta College, University of Delhi, India. He holds a Bachelor of Science (Honors) degree in Computer Science from Shaheed Sukhdev College of Business Studies, University of Delhi, and a Master of Science in Computer Science from the Department of Computer Science, University of Delhi. He is currently pursuing his doctoral research at the School of Engineering, Science, and Technology, Jamia Hamdard, New Delhi. Mr. Hemant has extensive teaching experience, having served in various esteemed institutions under the University of Delhi, including Ramanujan College, Shaheed Sukhdev College of Business Studies, Dyal Singh College, College of Vocational Studies, and Deen Dayal Upadhyay College. He joined Aryabhatta College in August 2023 and continues to contribute actively to its academic environment. His areas of research include database management systems, artificial intelligence, web technologies, and cloud computing. He has presented his work at prominent international conferences and has published his findings in reputable journals. An accomplished academic, he has cleared the UGC NET with Junior Research Fellowship (JRF) and regularly participates in professional development programs to advance his knowledge and teaching practices. His dedication to excellence in teaching and research reflects his commitment to the field of computer science.

8. Mr. Gagandeep Sharma, Assistant Professor

Mr. Gagandeep Sharma was Assistant Professor in Department of computer science, Aryabhatta College (University of Delhi). He did his BCA in 2006 and MCA in 2009 from University of Jammu. He worked as Teaching Assistant in Computer Science Department, Bhadarwah campus, University of Jammu from 10 August 2011 to 20 February 2013. He worked as Lecturer at J.K college of Bachelor of Computer Applications, Kunjwani, Jammu from 02 August 2010 to 25 June 2011. He worked as Lecturer in Computer Science, Sacred Heart College of Management Technology from 27 October 2009 to 30 April 2010.

9. Ms. Upasana Singh, Assistant Professor

Ms. Upasana Singh is an Assistant Professor in the Department of Computer Science at Aryabhatta College, University of Delhi, India. She received her Integrated Degree (B.Tech +

M.Tech) from Gautam Buddha University, Noida, Uttar Pradesh, India. She is currently pursuing a Ph.D. in Computer Science Engineering at Jawaharlal Nehru University, Delhi, India. Her research interests include image processing, steganography, and cryptography. She has published several research papers in international journals and conferences.

8. Student Strength

First Year	Second Year	Third Year
56	55	56

9. Details of publication work by the faculty members

Faculty	Title	Journal	Year	ISSN/ISBN
Dr. Priti Jagwani	Forecasting Financial Fraud Through Machine Learning : A Study of Indian Perspective.	Third Concept an International Journal of Ideas.	2024	0970-7247
Dr. Priti Jagwani	Covid-19 Vaccination: An Attitude Analysis of Global Users of Social Media Towards Government Communication	Indian Journal of Public Administration, 7	2024	0019-5561
Dr. Deepak Sharma	Intrusion detection system using hybrid convolutional neural network	Mobile Networks and Applications	2023	1572-8153
Dr. Deepak Sharma	An empirical analysis of software fault proneness using factor analysis with regression	Multimedia Tools and Applications	2024	1573-7721
Dr. Deepak Sharma	Towards intelligent industrial systems: A comprehensive survey of sensor fusion techniques in IIoT	Measurement: Sensors	2024	2665-9174
Dr. Deepak Sharma	Entity-Aware Data Management on Mobile Devices: Utilizing Edge Computing and Centric Information Networking in the Context of 5G and IoT	Mobile Networks and Applications	2023	1572-8153
Mr. Hemant Kumar	'AI Attend'Attendance Automation using Face Recognition Technique	Elsevier SSRN Proceedings	2024	4909404
Ms. Upasana Singh	A reversible data hiding scheme for sharing medical data	Biomedical Signal Processing and Control	2023	1746-8094

10. Participation of faculty members in seminars/workshops ,etc

Mrs. Mona Adlakha, Assistant Professor

Online one week Faculty Development Programme on "Open Source Tools for Teaching and Research"	12-09-2023 - 18-09-2023
4-Week Faculty Induction/Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education"	22-11-2023 - 21-12-2023
Two Weeks Online Training Programme on NEP 2020 Orientation & Sensitization Programme	01-02-2024 - 14-02-2024
Two - week Interdisciplinary Refresher Course in "ADVANCED RESEARCH METHODOLOGY"	26-04-2024 - 09-05-2024

Dr. Deepak Sharma

4-Week Faculty Induction/Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education"	22-11-2023 - 21-12-2023
Emerging Trends in Artificial Intelligence and Deep Learning	26-12-2023 - 30-12-2023
NEP 2020 Orientation & Sensitization Programme	01-01-2024 - 14-01-2024
Two - week Interdisciplinary Refresher Course in "ADVANCED RESEARCH METHODOLOGY"	26-04-2024 - 09-05-2024

Ms. Neha Kumari

Ancient Indian Mathematics, One Week FDP, IKS division, Shikshak Prashikshan Kendram – Aryabhatta college Ministry of Education, Govt. Of India	01 – 07 - 24 to 07 – 07 - 24
Machine Learning and Artificial Intelligence, One Week (10 hours) Live Online Industrial Training, EduLakes Solutions LLP	20 – 05 -24 to 24 – 05 -24
Deep Learning, One Week (10 hours) Live Online Industrial Training, EduLakes Solutions LLP	03– 06 -24 to 07 – 06 -24
ADVANCED RESEARCH METHODOLOGY, online two - week Interdisciplinary Refresher Course, Teaching Learning Centre Ramanujan College, University of Delhi	26 – 04 -24 to 0 9 – 05 - 24
4-Week Faculty Induction/Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education"	22-11-2023 to 21-12-2023

Ms. Upasana Singh

4-Week Faculty Induction /Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education"	22-11-2023 to 21-12-2023
Two -week Interdisciplinary Refresher Course in "ADVANCED RESEARCH METHODOLOGY"	26-04-2024 to 09-05-2024

Mr. Hemant Kumar

4 Week Online Induction Training/ Orientation Programme for Faculty in Universities/Colleges/ Institution of Higher Education	22-11-2023 to 21-12-2023
Short term Training Programme on Cloud Architecture & Security	26-12-2023 to 30-12-2023
NEP 2020 Orientation & Sensitization Programme	11-03-2024 to 20-03-2024
Two week Interdisciplinary Refresher Course on "ADVANCED RESEARCH METHODOLOGY"	26-04-2024 to 09-05-2024

Mr. Gagandeep Sharma

4-Week Faculty Induction/Orientation Programme for "Faculty in Universities/Colleges/Institutes of Higher Education"	22-11-2023 - 21-12-2023
Two week Interdisciplinary Refresher Course on "ADVANCED RESEARCH METHODOLOGY"	26-04-2024 to 09-05-2024
Certificate Course (SWAYAM- MOOC) : Problem Solving Aspects and Python Programming:	Jan 2024 to May 2024
Certificate Course (SWAYAM- MOOC): Image Processing Using Python: Chhattisgarh Swami Vivekanand Technical University, Bhilai (Swayam Online Course Certification)	Jan 2024 to May 2024
Ancient Indian Mathematics, One Week FDP, IKS division, Shikshak Prashikshan Kendram – Aryabhatta college Ministry of Education, Govt. Of India	1 – 07 - 24 to 7 – 07 - 24

11. Achievement of Students including their participation in various societies

Year	Name of the award/medal	Team/Individual	University/state/National/International	Sports/Cultural	Name of the student
2024	Award	Individual	University of Delhi, Delhi	Competition	Shivansh Saxena
2024	Award	Individual	University of Delhi, Delhi	Debate competition	Dipanker Bisht
2024	Award	Individual	University of Delhi, Delhi	Competition	Akash Yadav
2024	Award	Individual	University of Delhi, Delhi	Competition	Sonia
2024	Award	Individual	University of Delhi, Delhi	Competition	Piyush Yadav
2024	Award	Individual	University of Delhi, Delhi	Competition	Karan Chaudhary
2024	Award	Individual	University of Delhi, Delhi	Competition	Karan
2024	Award	Individual	University of Delhi, Delhi	Competition	Saurav Kumar
2024	Award	Individual	University of Delhi, Delhi	Competition	Udhisuta

12. Co-curricular Programmes conducted by the Department

Alumni Speak Series
TechPioneers organized its 6th edition of the alumni speak series on 14th October 2023. The guest speakers were our college alumni Ms. Smruti Monalisa, Mr. Ashish Choudhary, and Ms. Priya Verma. These distinguished alumni of Aryabhatta College are now Senior Product Specialist at Hashedin, Project Management Consultant at Capgemini India, and Product Management Consultant at Deloitte respectively.

Industrial Visit to Network Bulls, Gurugram (7th November 2023) Organized by: TechPioneers (Computer Science Society), Aryabhatta College TechPioneers, the Computer Science Society of Aryabhatta College successfully conducted an Industrial Visit to Network Bulls, Gurugram on 7th November 2023. The visit consisted of a training session on IT Networking and aimed to provide students with a comprehensive understanding of IT Networking and practical exposure to Cisco Routers and Switches. A group of 54 students and 5 faculty members from the Department of Computer Science, Aryabhatta College, participated in the visit.

Alumni Speak Series – Episode 8 – Informal Interaction with Alumnus TechPioneers (Computer Science Society), Aryabhatta College Session 2023-24 Alumni Speak Series – Episode 8 – Informal Interaction with Alumnus by Ms. Bhawna Shukla, Application Engineer, Amazon (20th March 2024).

On 20th March 2024, an informal alumni speaker session took place in the Computer Lab, when an esteemed alumnus visited the campus. The impromptu nature of the event added an element of excitement and spontaneity, drawing a crowd of eager students and faculty members eager to hear from the accomplished alumna. The event was attended by 27 students.

CELESTECH' 24

Annual Technical Fest of the Department of Computer Science, Aryabhatta College Abstract TechPioneers organized its Annual Technical Fest, CELESTECH'24 on 15th April 2024, which had multiple technical and fun-filled events for all. The event was huge success with enormous participation and team efforts.

AAVAAHAN '24

TechPioneers organized two events- Typeracer and Meme-o-Meter under the flagship of Aavaahan '24, the annual cultural fest of Aryabhatta College, on 29th April 2024 which had multiple cultural fun-filled events for all. With the dedicated team efforts, the event was a huge success with good participation from students from different colleges.

Poster Making Competition
TechPioneers, the Computer Science Society of Aryabhatta College, successfully organised a poster making competition as one of the events in a week-long celebration of National Science Day. The theme of the competition was 'Role of Women in Science'. The theme was decided in order to highlight the pivotal role of women in the field of science. The event aimed to celebrate the

contributions of women scientists ,inspire young minds and promote gender equality in science. The competition witnessed enthusiastic participation from students and faculty members from different departments. A total of 10 participants showcased their creativity and artistic skills through visually captivating posters that portrayed the theme beautifully. We saw some amazing posters that showcased the students' artistic skills .The event started at 1:30 pm and the time given to students was 1.5 hours to complete their posters . The participants brought their own art supplies and the organizers provided the paper.

Seminar on AI & Entrepreneurship

TechPioneers, the Computer Science Society of Aryabhatta College, successfully organised a seminar in which our guest was Mr. Praveen Kumar serving as Joint Director at STPI, Ministry of Electronics & IT. The seminar focused on the topic of "AI & Entrepreneurship: Exploring Entrepreneurship Opportunities for Young Talents in the AI Era". In today's era, AI is bringing revolution across different industries and the start-ups industry is one of them. Therefore, knowing what entrepreneurship is and how AI can be an aid to our entrepreneurial aspirations is extremely crucial. During the seminar, Mr. Praveen Kumar discussed the potential of AI and what kind of strategies can help us leverage AI for turning our ideas into reality. An overwhelming participation of 80 students, and teachers was received during the seminar.

Seminar Organised: TechPioneers, Computer Science Society, Aryabhatta College 26th February 2024 TechPioneers, the Computer Science Society of Aryabhatta College, successfully organized a seminar in which our guest was Dr. Ram Swaroop Bana, a renowned ICAR scientist and also a faculty member at IARI, New Delhi. The seminar focused on the topic of "The Impact of NARES (Indian National Agricultural Research and Education System) on Modern Agriculture". The primary sector, agriculture, holds immense importance, and it is crucial to enhance its development through the integration of cutting-edge technology for the betterment of our nation. Dr. Bana comprehensively discussed the role of various aspects and technologies developed by ICAR to assist farmers. The session was attended by 74 participants.

Library Budget sanctioned for the Department: **1.45 LAC**

(Strength ,Weakness , Opportunities, Challenges) SWOC Analysis of the Department
    1 STRENGTH

1.   Experienced & Committed Teachers
2.   Well-equipped lab with internet facilities
3.   Motivating and dedicated faculty members
4.   Good result and increase in student strength.
5.   ICT enabled teaching

    2 WEAKNESSES

1.   No separate space for the departmental library

2. No interdisciplinary activities
3. Common sitting area for faculties

3 OPPORTUNITES

1. To help and guide poor and average students
2. To increase campus placements
3. To improve soft skill for personality development.
4. To train students to face entrance tests like MCA, M.Sc.,MBA, GATE, NET and CAT
5. To provide quality education and special focus on rural backward students

4 CHALLENGES

1. Organization of International Seminar/Conference
2. Placing the students
3. Updating latest developments in the field of computer science

13. Future Plans of the Department

Academic
1. Strengthening the Computer Science manpower
2. Introducing new teaching and research programmes
3. Establish partnership with recognized universities and Industries
4. Formulate Academic Quality Assessment cell to monitor the academic quality parameters in the department.

Placement
1. Increase Industry Institute Interaction
2. Establish MoUs with local companies
3. Provide soft-skills and stress management tips to students

Dr. Sonal Linder