

SONIA SINGH

202 B, EXPRESS GREENS APARTMENT,
PLOT-01, SECTOR-01,
VAISHALI, GHAZIABAD-201010
Contact No. : 9540512809
E-mail: 14sonia.singh@gmail.com

Sonia Singh is currently an Assistant Professor of Computer Sciences on Adhoc Basis in Shyam Lal College (Evening), University of Delhi and possesses a rich teaching experience in various colleges of University of Delhi. She earned her graduate degree in Bachelor of Sciences in Computer Science from Acharya Narendra Dev College, University of Delhi and post graduate degree in Master of Sciences in Computer Science from University of Delhi. She has also cleared National Eligibility Test in Computer Science and Applications which is essential prerequisite for teaching positions in University of Delhi.

Current Position:-

Currently Employed as **Assistant Professor (Ad-Hoc)** in Shyam Lal College (Evening) – University of Delhi, Grand Trunk Road, Dwarkapuri, Shahdara, New Delhi, Delhi 110032

Previous Positions:-

1. Worked as **Assistant Professor (Ad-Hoc)** in Shaheed Rajguru College of Applied Sciences for Women, University of Delhi from 2nd January 2014 – 22nd May 2014
2. Worked as a **Guest Lecturer** in Maitreyi College, University of Delhi from August 2013 – November 2013
3. Worked as a **Guest Lecturer** in Shaheed Sukhdev College of Business Studies, University of Delhi from August 2013 – November 2013
4. Worked as a **Guest Lecturer** in Dayal Singh College, University of Delhi from August 2013 – November 2013
5. Worked as a **Guest Lecturer** in Kalindi College, University of Delhi from August 2012 – November 2012

Academic Profile:-

1. M.Sc. in Computer Sciences from Department of Computer Science, University of Delhi (2010 - 2012).
2. B.Sc. (Hons) in Computer Science from Acharya Narendra Dev College, University of Delhi (2007 - 2010).
3. **Cleared UGC NET December 2012 Examination and qualified for Lectureship**

Papers Published:-

1. First author in a Research Paper Published in "IME JOURNAL (ISSN No.: 0974-0716) (Volume VIII, No. 2, July 2014)" entitled "**EVALUATING THE ID3 DECISION TREE ALGORITHM IN WEKA**".

2. First author in a Research Paper Published in "International Journal of Advanced Information Science and Technology (IJAIST), ISSN: 2319-2682. Vol. 27 No. 27, July 2014", entitled **"COMPARATIVE STUDY OF ID3, CART AND C4.5 DECISION TREE ALGORITHM: A SURVEY"**.
3. Co-Author in a paper published in "International Journal of Computer Science and Information Technologies, Vol. 5(4), 2014, 5068-5070" entitled **"ISSUES IN MOBILE E-COMMERCE: A SURVEY"**.
4. Co-Author in a paper published in "International Journal of Advanced Research in Computer Science and Software Engineering, Volume 8, ISSN: 2277-1280, Issue 8 Aug 2014 Entitled **"Image Encryption based on Arnold Cat Map and S-Box"**

Subjects Taught:-

1. Data Mining to B.Sc. (H) Computer Science
2. D.B.M.S. to B.Sc. (H) Computer Science & B.Tech
3. Computer System Architecture to B.Tech
4. Computer Fundamentals to Allied Course
5. Computer Applications to B.A. (Programme)
6. Visual Programming to B.A. (Programme)
7. Information Security to B.A. (Programme)
8. P.F.D.S. (Python) to Allied Course
9. E-Commerce to B.Com (H)
10. Introduction to Programming (GE)

Projects Undertaken, M.Sc. (Computer Science):-

- Implementation of K-Means Algorithm:

A clustering algorithm that accept no. of clusters and the input data file name and output the centroid, number of members, diameter, radius of each cluster [Language: C++, Platform: Linux]

- Implementation of Clu-Stream Algorithm:

A data stream clustering algorithm that compute the no. of micro clusters and use the K-means Algorithm for discovering (macro-) clusters over user-defined time periods.[Language: C++, Platform: Linux]

- Presented a report on the topic of "Selective Image Encryption":

Selective or Partial Encryption schemes cipher the small parts of an image mostly correspond to the most significant information using AES. [Implemented in: MATLAB]

- Presented a report on the topic of "A Reversible Data Hiding Methods for Encrypted Images".

The proposed algorithm encrypts the images using shuffle Encryption Algorithm and embed data in encrypted images. The original image is rebuilt by first removing the hidden data and then applying the decryption process. [Implemented in: MATLAB]

Area of Interest:-

D.B.M.S., Operating System, Software Engineering, C.S.A., Data Mining, Python

Technical Exposure:-

1. Programming Languages : C, C++
2. Operating System : Linux, Windows 98/XP
3. Simulation Tool : MATLAB, WEKA, CPU SIM

Extracurricular Activities:-

1. Member of Delhi University Computer Science Society which organizes annual technical festival named "SANKALAN"
2. Participated as well as organized Linux workshop in Acharya Narendra Dev College (Delhi University) in January, 2009