

# SHALABH AGARWAL

M.Sc.(CSC), MBA(IT)

Associate Professor

Director, Computer Centre & Central Computing Facilities,

Head of the Department of Computer Science and

Systems In-charge

St. Xavier's College [Autonomous], Kolkata.



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*A member of teaching staff of St. Xavier's College for more than last 27 years and have been entrusted with direct executive and supervisory powers and responsibilities.*

- Presently working on the design and implementation of CASHLESS campus at St. Xavier's College.
- Supervising the development and implementation of ERP at St. Xavier's College.
- Successfully implemented the **ON-LINE FEES PAYMENT system** with the help of the in-house software team.
- Successfully implemented the **REAL-TIME ID CARD system** with the help of the in-house software team.
- Responsible for the installation, implementation & maintenance of entire IT infrastructure of the College.
- Successfully implemented the **ON-LINE application system** for 1<sup>st</sup> Year admissions, at St. Xavier's College in the year 2004. The system is in operation till date and is implemented for all UG, PG and other courses at St. Xavier's College.

## **Teaching experience in Computer Science and Application :**

*Over 27 years of experience in Computer Teaching & implementation of IT infrastructure.*

- Teaching in B.Sc. & M.Sc. (Computer Science) courses at St. Xavier's College [Autonomous], Kolkata.
- Teaching Computer Science, Application and IT in M.Sc. Biotechnology, Journalism, BBA & BCOM courses at St. Xavier's College [Autonomous], Kolkata.
- Teaching in DOEACC courses.
- Counsellor for MCA course of Indira Gandhi National Open University (IGNOU).
- Formerly, Visiting Faculty at
  - Ramkrishna Mission Vidyamandira, Belurmath
  - IIAS International University, Kolkata Campus
  - Loreto House, Kolkata
  - Computer Society of India, Calcutta Chapter
  - Police Computer Centre, Kolkata.

## **Other involvements :**

- Assistant Co-ordinator, Indira Gandhi National Open University, Study Centre Code - 2802, St. Xavier's College, Kolkata
- Formerly Programme-in-Charge (Computer Programmes), Indira Gandhi National Open University, Study Centre Code - 2802, St. Xavier's College, Kolkata from 1997 to 1998.
- Associated with IGNOU from 1991. Involved in the planning, implementation and conducting of DCO and MCA courses of IGNOU right from its inception in St. Xavier's College Study Centre.
- Member of the Advisory Committee of St. Xavier's Computer Centre for a period of three years from 1998.
- Formerly Associated with Sherampore College in design and implementation of Information System and promoting computer awareness within the College.
- Project guide for various projects at UG and PG level.
- Member of the syllabus committee of various Universities and Institutes.

- Examiner for various examinations at the University and College level.
- Resource Person at various Seminars and Workshops.
- Member, IEEE and Computer Society of India.
- Member of Management Committee of Sunrise School, Belur, Howrah.

### **Professional Diplomas / Courses / Certificates in the Computer field :**

- **Post Graduate Certificate in Cyber Law** from IGNOU.
- **Microsoft Certified System Engineer** course approved by Microsoft Corporation, from SQL Star International, Microsoft Certified Technical Education Center.
- **RDBMS & ORACLE** from CMC limited.
- **ORACLE & DEVELOPER 2000** from SQL Star International.
- **Business Professional Programmer Certificate** from CSI on behalf of AICTE & Department of Electronics, Govt. of India.

### **Research Interest:**

Green Computing, Pervasive Computing, Software Engineering, ERP, E-Commerce, Cyber Law and Internet security.

### **Research Publications:**

1. *Access Control Android Application to Remotely Control PC*, International Journal of Computer Sciences and Engineering, Vol.-6, Issue-5, May 2018 E-ISSN: 2347-2693.
2. *Developing a Face Recognition and Analysis System (FRAS) and its Applications*, International Journal of Innovative Research in Computer and Communication Engineering (IJIRCCCE) ISSN: 2320-9801, Issue 05, Volume 5, Page: 9306-9316, (May 2017).
3. *Scope and Issues in Green Compiler*, International Research Journal of Computer Science(IRJCS), ISSN : 2393-9842, Issue 12, Vol 3, Page 86-93, December 2016.
4. *Green Enterprise Computing-Approaches Towards a Greener IT,,* International Journal of Innovative Research in Advanced Engineering (IJIRAE) ISSN: 2349-2763 Issue 03, Volume 3, Page: 1-5, (March 2016).
5. *Security and Privacy Issues of Internet of Things : Challenges and Threats,;* International Journal of Advanced Technology in Engineering and Science, Vol. 2, Issue 11, Page 89-98, Nov, 2015.
6. *Green Solutions: A Pilot Study on Green Technology and Green Computing:* International Journal of Advanced Research in Computer Science and Software Engineering(IJARCSSE), ISSN: 2277 128X, Vol-5, Issue-10, Page 680-686, October 2015.
7. *Li-Fi Technology: Data Transmission through Visible Light:* International Journal of Advance Research in Computer Science and Management Studies(ISSN:2231-7782(Online)), Vol 3, Issue 6, Page: 1-12,(June 30 , 2015).
8. *Scope and Challenges in Light Fidelity (LiFi) Technology in Wireless Data Communication:* International Journal of Innovative Research in Advanced Engineering(IJIRAE) ISSN:2349-2163, Issue 6, Vol. 2, Page 1-9(June 2015).
9. *Impacts of Social Networks: A Comprehensive Study on Positive and Negative Effects on Different Age Groups in a Society:* International Journal of Advance Research in Computer Science and Management Studies(IJARCSMS), Vol-3, Issue 5, Page 177-190,(May 2015).
10. *Trends and Awareness in Green Computing Initiatives: a Comprehensive Study:* International Journal of Advance Research in Computer Science and Management Studies(IJARCSMS), Vol. 3, Issue 4, Page 1-10, (April 2015).
11. *Application of Smartphone in Social Area Networks: An Initiative Towards Green Computing:* International Journal of Emerging Technology and Advanced Engineering, Vol.5, Issue 2, (February 2015).
12. *Green Computing and Sustainable Environment - Introduction of E-documents and Replacement of Printed Stationeries,* International Journal of Innovative Research in Information Security (IJIRIS), Volume 1 Issue 5 (November 2014)

13. *Massive Open Online Courses(MOOCs) - A Comprehensive study and its Application to Green Computing in Higher Education Institution*, International Journal of Emerging Trends in Engineering Research(IJETER), Vol.2, No.2, Page-7-14, Feb(2014).
14. *"Virtual Desktop Infrastructure in Higher Education Institution : Energy Efficiency as an application of Green Computing"*, published in Proceedings of IEEE conference CSNT-2014 held at Bhopal, page-601-605, April 7(2014).
15. *"Impact of Green Computing in IT Industry to make Eco Friendly Environment"*, Journal of Global Research in Computer Science(JGRCS), Vol 5, No.4, Page 5-10 (April 2014).
16. *"E-Waste Management is an Emerging Challenge in the Globe : A Pilot Study in Indian Scenario"*, International Journal of Innovative Research in Advanced Engineering(IJIRAE), Vol 1 ,Issue 4,Page 76-81, May 30, 2014.
17. *"Green Computing and Green Technology based teaching learning and administration in Higher Education Institutions"*, International Conference on Emerging Trends, Technology and Research, ICETTR-2013, September 21-22, 2013, Nagpur, India. Proceedings published by International Journal of Advanced Computer Research (ISSN (print): 2249-7277 ISSN, (online): 2277-7970), Volume-3 Number-3 Issue-11 September-2013.
18. *"Green Computing and Green Technology in e-Learning, Corporate, Business and IT Sectors"*, International Journal of Computer Applications(IJCA), Vol 76, No.7, (August), Pp. 35-41(2013).
19. *"Issues of privacy and security in the role of software in smart cities"*, 2013 International Conference on Communication Systems and Network Technologies, 978-0-7695-4958-3/13 \$26.00 © 2013 IEEE, DOI 10.1109/CSNT.2013.113
20. *"Confidential Encrypted Data Hiding and Retrieval Using QR Authentication System"*, 2013 International Conference on Communication Systems and Network Technologies, 978-0-7695-4958-3/13 \$26.00 © 2013 IEEE, DOI 10.1109/CSNT.2013.112
21. *"A Study on Implementing Green IT in Enterprise 2.0"*, International Conference on Advanced Computing and Communication (ICACC-2013), Ranchi, March 2013.
22. *"Application of Green Computing in Framing Energy Efficient Software Engineering"*, International Conference on Advanced Computing and Communication (ICACC-2013), Ranchi, March 2013.
23. *"A Comprehensive Study On Cloud Green Computing To Reduce Carbon Footprints Using Clouds"*, International Conference on Advanced Computing and Communication (ICACC-2013), Ranchi, March 2013.
24. *"GREEN SOFTWARE ENGINEERING PROCESS : MOVING TOWARDS SUSTAINABLE SOFTWARE PRODUCT DESIGN"*, Journal of Global Research in Computer Science, Volume 4, No. 1, January 2013, ISSN: 2229-371X
25. *"Desktop Virtualization and Green Computing Solutions"*. 2nd International Conference on Soft Computing for Problem Solving (SocproS 2012), Jaipur, December 2012.
26. *"Smart Software and Smart Cities: A study on Green Software and Green Technology to develop a urbanized world"*. International Journal of Advanced Computer Research (ISSN: 2277-7970), Volume 2-No.-4 Issue-6, December 2012. (Proceedings of International Conference on Emerging Trends and Technology, ICETT-2012).
27. *"Ultra Encryption Standard Modified (UES) Version-IV: New Symmetric Key Cryptosystem with bit-level Columnar Transposition and Reshuffling of Bits"*. International Journal Computer Applications (0975-8887), Volume 51-No.-1, August 2012, DOI: 10.5120/8007-1361
28. *"Ultra Encryption Standard Modified (UES) Version-II: Symmetric Key Cryptosystem using using Generalized modified Vernam Cipher Method, Permutation Method, and Columnar Transposition Method and TTJSA method"*. International Conference on Foundations of Computer Science, 2012, Worldcomp-2012, Las Vegas, USA, July 2012.
29. *"Ultra Encryption Algorithm (UEA): Bit-level Symetric Key Cryptosystem with Randomized Bits and Feedback Mechanism"*. International Journal Computer Applications (0975-8887), Volume 49-No.-5, July 2012, DOI: 10.5120/7626-0687

30. *"Ultra Encryption Standard (UES) Version-III: Advanced Symmetric Key Cryptosystem With Bit-level Encryption Algorithm"*. International Journal of Modern Education and Computer Science, 2012, DOI: 10.5815/IJMECS.2012.07.07.
31. *"Ultra Encryption Standard Modified (UES) Version-I: Symmetric Key Cryptosystem With Multiple Encryption and Randomized Vernam Key using Generalized Modern Vernam Cipher Method, Permutation Method, and Columnar Transposition Method"*. International Journal of Modern Education and Computer Science, 2012, DOI: 10.5815/IJMECS.2012.07.05.
32. *"Green Computing Endeavor in Higher Educational Institutes - a noble initiative towards Sustainable IT Infrastructure"*. Journal of Computing, Volume 4, Issue 5, May 2012, ISSN 2151-9617.
33. *"Design and Analysis of e-Journal Management Systems: SXC International Journal of Advanced Computing Sciences (SXC-IJACS)"*. IEEE International Conference on Communication Systems and Network Technologies held at Rajkot, India in May 2012.
34. *"Battling the fear of heights: Pros and cons of the personal cloud."* IEEE International Conference on Communication Systems and Network Technologies held at Rajkot, India in May 2012.
35. *"E-LEARNING METHODOLOGIES AND ITS TRENDS IN MODERN INFORMATION TECHNOLOGY"* - Journal of Global Research in Computer Science, Volume 3, No. 4, April 2012, ISSN: 2229-371X
36. *"OPEN AND DISTANCE LEARNING (ODL) EDUCATION SYSTEM: PAST, PRESENT AND FUTURE - A SYSTEMATIC STUDY OF AN ALTERNATIVE EDUCATION SYSTEM -* Journal of Global Research in Computer Science, Volume 3, No. 4, April 2012, ISSN: 2229-371X
37. *"Ubiquitous E-learning - a paradigm shift towards a collaborative learning environment"* - UGC sponsored seminar on ICT in Higher Education: Opportunities and Challenges in 21st Century, organized by St. Xavier's College [Autonomous] Kolkata and A K Choudhury School of Information Technology under University of Calcutta, 28th March 2012.
38. *"Recent Trends in E-Learning Technologies and its application to modern ICT"* - UGC sponsored seminar on ICT in Higher Education: Opportunities and Challenges in 21st Century, organized by St. Xavier's College [Autonomous] Kolkata and A K Choudhury School of Information Technology under University of Calcutta, 28th March 2012.
39. *"Sustainable Approaches and Good Practices in Green Software Engineering"* - International Journal of Research and Reviews in Computer Science (IJRRCS), Vol. 3, No. 1, February 2012, ISSN: 2079-2557
40. *"Cloud Computing is an application of Green Computing - a new horizon of Energy Efficiency and beyond"* - Second International Conference on Computer Application, ICCA-2012 Pondichery, Jan 27-31, 2012.
41. *"SXC-JMS: A WEB -BASED JOURNAL MANAGEMENT SYSTEM"* - International Conference on Information Technology Convergence and Services (ITCS-2012), Bangalore January 2012, ITCS, SIP, JSE-2012, CS&IT 04, pp 417-427, 2012. DOI:10.5121/csit.2012.2138.
42. *"Green Computing - a new Horizon of Energy Efficiency and Electronic waste minimization: A global Perspective"* - International Conference on Communication and Network Technologies, IEEE Computer Society, CSNT 2011, Jammu, India. Published by IEEE Xplore and **IEEE Computer Society Digital Library**. Print ISBN: 978-1-4577-0543-4, INSPEC Accession Number: 12143237, Digital Object Identifier: 10.1109/CSNT.2011.148
43. *"New Data Hiding Algorithm in MATLAB using Encrypted secret message"* - International Conference on Communication and Network Technologies, IEEE Computer Society, CSNT 2011, Jammu, India. Published by **IEEE Xplore** and **IEEE Computer Society Digital Library**. Print ISBN: 978-1-4577-0543-4, INSPEC Accession Number: 12139372, Digital Object Identifier: 10.1109/CSNT.2011.64
44. *"Intelligent Agents used in Military and Warfare: Some Ethical Issues in Global perspectives"*- International Conference on Computational Intelligence and Communication Networks, **IEEE Computer Society**, CSNT 2011, Gwalior, India (7-9 October 2011). Published by **IEEE Xplore** and **IEEE Computer Society Digital Library**. Print ISBN: 978-0-7695-4587-5.

45. **"Social Media - The New Corporate Playground"** - International Journal of Research and Reviews in Computer Science (IJRRCS), Vol. 2, No. 3, June 2011, ISSN: 2079-2557
46. **"A Challenge in Hiding Encrypted Message in LSB and LSB+1 Bit Positions in various Cover Files"** - Journal of Global Research in Computer Science, Vol. 2, No. 4, April 2011, ISSN: 2229-371X
47. **"A Framework for Exercising Voting Rights from Anywhere using ICT Infrastructure"** - Journal of Global Research in Computer Science, Vol. 2, No. 4, March 2011, ISSN: 2229-371X
48. **"Some Challenges in Designing and Implementing Learning Materials for Ubiquitous E-learning Environment"** - Journal of Global Research in Computer Science, Vol. 2, No. 2, February 2011, ISSN: 2229-371X
49. **"Pervasive Computing - an application to effective teaching-learning process"** - Journal of Computing, Vol. 3, Issue 2, February 2011, ISSN: 2151-9617
50. **"Advanced steganographic approach for hiding encrypted secret message in LSB, LSB+1, LSB+2 and LSB+3 bits in non standard cover files"** - International Journal of Computer Applications, No. 6, Article 6, 2011, ISSN: 0975 - 8887