



## **Profile of Asoke Nath, M.Sc,Ph.D.,M.C.A, D.Litt**

**Associate Professor  
Department of Computer Science  
St. Xavier's College(Autonomous)  
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1. Passed M.Sc. in Physics in 1976 from University of North Bengal.
2. Obtained Ph.D. in Science in 1984 from University of North Bengal.
3. Worked as Full-time Research Scholar in Indian Association For the Cultivation of Science from 1978-1981 and as Part-Time Research Scholar from 1982-1984.
4. Worked as Research Officer in NSF Project(USA) in Indian Association for the Cultivation of Science from 1984-1986
5. Worked as Full-time Lecturer-in-Physics in Dinhata College, Cooch Behar from 1981-1984.
6. Worked as Computer Programmer at Rabindra Bhavan, Viswa Bharati University from 1986-1987.
7. Joined as Assistant Director of St. Xavier's Computer Centre on 12-th February 1987.
8. The designation Assistant Director has been changed to Executive Director since April 1<sup>st</sup> 1992.
9. Passed M.C.A. from Sikkim Manipal University in 2009.
10. Obtained Doctor of Letters(D.Litt) on 30/05/2018 from International Economics University, Maldives for contribution in Cryptography and Network Security.

### **Research Experience:**

From 1978-1981 he was actively involved in research work in Theoretical work on Crystal field theory. Did post doctoral work on "Chaos in non linear optics" from 1984-1987 and published several papers in renowned International Journals. During his Ph.D. work and post doctoral work he has done massive computational work in main frame computer. From 1986 he completely switch over to computer science. Attended various National and International seminars, conference on computers. Presently he involved in research work on Cryptography, Steganography, Image Processing, Quantum Cryptography, Green Computing. Presented a Paper on Symmetric Key cryptography in World Congress on Computer Science held at Las Vegas in USA in July-2010. Presented 2 papers and one tutorial session at Worldcomp-2011 held at Las Vegas from 18/07/2011 to 21/07/2011. Presented Tutorial entitled "Cryptography

and Network Security” in World Congress WICT 2011 held at Mumbai University on 11/12/2012.

Currently engaged in various research projects of undergraduate level and also Post graduate in Computer science. An UGC minor research project on “Cryptography” approved in November-2010. Started working on Pervasive computing and Quantum Cryptography.

### **Teaching Experience:**

Approximately taught 3 years B.Sc. Physics in under graduate college. Actively teaching in various topics of Computer Science in various courses at the Computer centre since 1987. He was the founder Head of the Department of Computer Science in 1998 when the dept formed at St. Xavier’s College. He was acting as the head of the department of computer science from 1998 to 2008. He is actively taking classes on various subjects of computer science in under graduate level from 2001. He acted as visiting faculty of A.K.Chaudhury School of IT, Raja Bazar Science College for taking classes in MCA and M.Tech(IT). He is also the part-time MCA counselor of IGNOU . The subjects normally he take classes are computer fundamentals, Operating system : MSDOS, WINDOWS, LINUX , computer languages : C,C++,FORTRAN,.Pascal, NET and C#,JAVA,MATLAB and SIMULINK, Visual Basic., Database S/W : ORACLE 9i, DBA-I and II, Database Tuning, ACCESS. Electronic Spread Sheet: EXCEL, Computer Graphics, Operations Research, Linear Programming problem, Numerical Methods, Discrete Mathematics, Compiler Theory, Finite State Automation, Cryptography, Steganography, Digital Signal Processing, Design of Web Page using HTML,XML and Javascript .

### **Job Experience:**

1. Worked as Lecturer-in-Physics from 1981-1984 in an under graduate college
2. Worked as Programmer in computer in Rabindra Bhavan,Viswa Bharati University from 1986-1987.
3. Working as Assistant Director and then as Executive Director of the Computer Centre of St. Xavier’s College(Autonomous).
4. Worked as Part-time Assistant Co-ordinator of IGNOU study centre code-2802(St. Xavier’s College study centre) from 1991 to 1994.
5. Working as part-time Co-ordinator of IGNOU study centre code-2802 from 1995.

### **Other Activities:**

He is actively involved in distance education system. Participated in various Interactive Radio Counselling sessions of IGNOU on Distance Education from Calcutta –B and from Gyan Vani FM channel. He had also conducted various Examination special Programmes from Kolkata Doordarshan Kendra for 10+2 Computer Science students. He is a life member of CSI Calcutta Chapter. He is also member of IEEE.

## **List of Publications:**

### **1981-1987**

1. Configuration mixing and crystal field splitting of Fe<sup>2+</sup> and Cu<sup>2+</sup> ions : A.Nath, C.Basu and U.S.Ghosh, **Indian J. Phys.** **55A,277-280(1981)**.
2. Ligand Field Theory of Magnetic Behaviours of Neodymium Ethylsulphate Nonahydrate : A.Nath, U.S.Ghosh, **Phys. Stat. Sol.(b) Vol. 112, P-187-192(1982)**.
3. Interpretation of the optical, magnetic and thermal behaviours of thulium ethyl sulphate: A.Nath, **Indian J. Phys.** **57A, 279-282(1983)**.
4. Interpretation of the Optical and Magnetic Behaviours of Pr<sub>2</sub>Mg<sub>3</sub>(NO<sub>3</sub>)<sub>12</sub>·24H<sub>2</sub>O:, A.Nath, **Journal of Physical Society of Japan, Vol. 52, No.9, September, pp 3244-3247(1983)**.
5. Absorption and Circular Dichroism Spectra of a Single Crystal K<sub>3</sub>Pr<sub>2</sub>(NO<sub>3</sub>)<sub>9</sub>: Prabir Kumar Chatterjee, Asoke Nath, Debnarayan Nath and Mihir Chowdhury, **Chem. Phys. Lett.** **Vol.110, No 1, Page 95-98(1984)**.
6. Interpretation of Optical & Magnetic Behaviour of Praseodymium Ethyl Sulphate : A.Nath, R.Gupta and C.Basu, **Indian J. of Pure and Appl. Phys.**, **Vol. 23, P-415-417(1985)**.
7. Chiroptical activity of <sup>8</sup>S--><sup>6</sup>P transitions in Gadolinium pyrogermanate single crystal, **Chemical physics Letters, Vol 118, No.4, page 427-430(1985)**.
8. Critical Instability in the Semiclassical N-atom Jaynes-Cummings Model : Asoke Nath, Deb Shankar Ray, **Phys. Letts. A, Vol. 116, No.3, P-104-106(1986)**.
9. Chaos in an exciton-biexciton two-oscillator model : Asoke Nath, Deb Shankar Ray, **Phys. Rev. B, Vol. 34, No.5, P-4472-4475(1986)**.
10. Chaos in inelastic light scattering dielectric crystals : Asoke Nath, Deb Shankar Ray, **Phys. Rev. B, Vol.34, No.4, P-2929-2932(1986)**.
11. Global Critical Instability in Atom-Field Interaction: Asoke Nath, Deb Shankar Ray, **Phys. Letts A, Vol. 117, No.7, P 341-344(1986)**.
12. Horseshoe-shaped maps in chaotic dynamics of atom-field interaction: Asoke Nath, Deb Shankar Ray, **Phys. Rev A, Vol.36, No 1, P 431-434(1987)**.
13. Period-doubling bifurcations in stimulated Raman scattering : Asoke Nath, Deb Shankar Ray, **Phys. Rev A, Vol 35, No.4, P-1959-1962(1987)**.

### **2010:**

14. Symmetric Key Cryptography using Random Key generator : Asoke Nath, Saima Ghosh, Meheboob Alam Mallik: “**Proceedings of International conference on security and management(SAM’10**” held at Las Vegas, USA Jull 12-15, 2010), **Vol-2, Page: 239-244(2010)**.
15. Data Hiding and Retrieval : Asoke Nath, Sankar Das, Amlan Chakraborti, published in **IEEE “Proceedings of International Conference on Computational Intelligence and Communication Networks (CICN 2010)” held from 26-28 NOV’2010 at Bhupal, Page: 392-397(2010)**.

### **2011:**

16. Advanced steganographic approach for hiding encrypted secret message in LSB, LSB+1, LSB+2 and LSB+3 bits in non standard cover files: Joyshree Nath, Sankar Das, Shalabh Agarwal and Asoke Nath, **International Journal of Computer Applications, Vol14-No.7,Page-31-35, Feb(2011)**.
17. Advanced Symmetric key Cryptography using extended MSA method: DJSSA symmetric key algorithm: Dripto Chatterjee, Joyshree Nath, Soumitra Mondal, Suvadeep Dasgupta and Asoke Nath, **Jounal of Computing, Vol 3, issue-2, Page 66-71, Feb(2011)**.

18. Advanced Steganography Algorithm using encrypted secret message : Joyshree Nath and Asoke Nath, **International Journal of Advanced Computer Science and Applications, Vol-2, No-3, Page-19-24, March(2011).**
19. Some Challenges in Designing and Implementing Learning material for Ubiquitous e-learning Environment: Shalabh Agarwal and Asoke , **Journal of Global Research in Computer Science, Vol-2, No2, Page-29-32, Feb(2011).**
20. A Challenge in hiding encrypted message in LSB and LSB+1 bit positions in any cover files : executable files, Microsoft office files and database files, image files, audio files and video files : Joyshree Nath, Sankar Das, Shalabh Agarwal and Asoke Nath : **JGRCS, Vol-2, No.4, Page:180-185, April (2011)**
21. A new Symmetric key Cryptography Algorithm using extended MSA method :DJSA symmetric key algorithm, Dripto Chatterjee, Joyshree Nath, Suvadeep Dasgupta and Asoke Nath : **Proceedings of IEEE International Conference on Communication Systems and Network Technologies, held at SMVDU(Jammu) 03-06 June,2011, Page-89-94(2011).**
22. New Symmetric key Cryptographic algorithm using combined bit manipulation and MSA encryption algorithm: NJSSA symmetric key algorithm :Neeraj Khanna, Joel James, Joyshree Nath, Sayantan Chakraborty, Amlan Chakrabarti and Asoke Nath : **Proceedings of IEEE CSNT-2011 held at SMVDU(Jammu) 03-06 June 2011, Page 125-130(2011).**
23. New Data Hiding Algorithm in MATLAB using Encrypted secret message :Agniswar Dutta, Abhirup Kumar Sen, Sankar Das, Shalabh Agarwal and Asoke Nath : **Proceedings of IEEE CSNT-2011 held at SMVDU(Jammu) 03-06 June 2011, Page 262-267(2011).**
24. Application of Radio Frequency Controlled Intelligent Military Robot in DefensSaradindu Naskar, Soumik Das, Abhik Kumar Seth and Asoke Nath : **Proceedings of CSNT-2011 held at SMVDU(Jammu) 03-06 June 2011, Page 396-401(2011).**
25. Social Media :The new Corporate Playground, Shalabh Agarwal, Akash Mondal and Asoke Nath : **International Journal of Research and Reviews in Computer Science(IJRRCS), Vol 2, No.3, June, Page-696-700 (2011).**
26. "Green Computing - a new Horizon of Energy Efficiency and Electronic waste minimization": a Global Perspective, Shalabh Agarwal and Asoke Nath : **Proceedings of IEEE CSNT-2011 held at SMVDU(Jammu) 03-06 June 2011, Page 688-693(2011).**
27. An efficient data hiding method using encrypted secret message obtained by MSA algorithm: Joyshree Nath, Meheboob Alam Mallik , Saima Ghosh and Asoke Nath : **Proceedings of the International conference Worldcomp 2011 held at Las Vegas(USA), 18-21 Jul(2011), Page 312-318, Vol-1(2011)**
28. Symmetric key Cryptography using modified DJSSA symmetric key algorithm, Dripto Chatterjee, Joyshree Nath, Sankar Das, Shalabh Agarwal and Asoke Nath, **Proceedings of International conference Worldcomp 2011 held at LasVegas 18-21 July 2011, Page-306-311, Vol-1(2011).**
29. Intelligent Agents in Defense and Warfare Some Ethical Issues in Global Perspectives, Sahon Bhattarchyya, Shalabh Agarwal and Asoke Nath, **Proceedings of IEEE International conference held at Gwalior, Vol-2, page 4-8(2011).**
30. An Integrated symmetric key cryptography algorithm using generalized vernam cipher method and DJSA method: DJMNA symmetric key algorithm : Debanjan Das, Joyshree Nath, Megholova Mukherjee, Neha Chaudhury and Asoke Nath: **Proceedings of IEEE International conference : World Congress WICT-2011 to be held at Mumbai University 11-14 Dec, 2011, Page No.1203-1208(2011).**

31. Symmetric key cryptosystem using combined cryptographic algorithms- generalized modified vernam cipher method, MSA method and NJJSA method: TTJSA algorithm – Trisha Chatterjee, Tamodeep Das, Joyshree Nath, Shayan Dey and Asoke Nath, **Proceedings of IEEE International conference : World Congress WICT-2011 t held at Mumbai University 11-14 Dec, 2011, Page No. 1179-1184(2011).**
32. A new randomized data hiding algorithm with encrypted secret message using modified generalized Vernam Cipher Method: RAN-SEC algorithm, Rishav Ray, Jeeyan Sanyal, Tripti Das, Kaushik Goswami, Sankar Das and Asoke Nath, **Proceedings of IEEE International conference : World Congress WICT-2011 held at Mumbai University 11-14 Dec, 2011, Page No. 1215-1220 (2011).**  
**2012:**
33. SXC-JMS: A Web-based Journal Management System—Sahon Bhattacharyya, Kalayan Mondal, Shalabh Agarwal, Asoke Nath, **Proceedings of International Conference on Software Engineering(JSE 2012) held at Bangalore Jan 3-4,Page: 417-427(2012).**
34. Symmetric key Cryptography using two-way updated – Generalized Vernam Cipher method: TTSJA algorithm, **International Journal of Computer Applications(IJCA, USA), Vol 42, No.1, March, Pg: 34 -39( 2012).**
35. Ultra Encryption Standard(UES) Version-I: Symmetric Key Cryptosystem using generalized modified Vernam Cipher method, Permutation method and Columnar Transposition method, Satyaki Roy, Navajit Maitra, Joyshree Nath,Shalabh Agarwal and Asoke Nath, **Proceedings of IEEE sponsored National Conference on Recent Advances in Communication, Control and Computing Technology-RACCCT 2012, 29-30 March held at Surat, Page 81-88(2012).**
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37. A Comprehensive Study of Target Prediction Algorithms for Animal MicroRNAs(miRNAs),**International Journal of Computer Applications(0975-8887,USA), Joyshree Nath, Asoke Nath, Vol-40, No 15(Feb),(2012).**
38. A new Challenge of hiding any encrypted secret message inside any Text/ASCII file or in MS word file : RJDA Algorithm, Rishav Ray, Jeeyan Sanyal, Debanjan Das and Asoke Nath, **Proceedings of IEEE CSNT-2012 conference held at Rajkot May 11-13, 2012, Page:889-893(2012).**
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41. A new data hiding algorithm with encrypted secret message using TTJSA symmetric key crypto system, Sayak Guha, Tamodeep Das, Saima Ghosh, Joyshree Nath, Sankar Das, Asoke Nath, **Journal of Global Research in Computer Science, Vol 3, No.4, Page-11-16(2012).**
42. E-Learning Methodologies and its Trends in Modern Information Technology, Joyshree Nath, Saima Ghosh, Shalabh Agarwal, Asoke Nath, , **Journal of Global Research in Computer Science, Vol 3, No.4, Page-48-52(2012).**
43. Open and Distance Learning (ODL) Education System : Past, Present and Future – A systematic study of an alternative Education System, Saima Ghosh, Joyshree Nath, Shalabh Agarwal, Asoke Nath, , **Journal of Global Research in Computer Science, Vol 3, No.4, Page-53-57(2012).**

44. Advanced Digital Steganography using Encrypted Secret Message and Encrypted Embedded Cover File, Joyshree Nath, Saima Ghosh and Asoke Nath, International Journal of Computer Applications(IJCA 0975-8887), Vol 46, No-14, May ,(2012).
45. An Integrated Symmetric Key Cryptographic Method – Amalgamation of TTJSA Algorithm, Advanced Caesar Cipher Algorithm, Bit Rotation and reversal Method : SJA Algorithm., International Journal of Modern Education and Computer Science, Somdip Dey, Joyshree Nath, Asoke Nath,(IJMECS), ISSN: 2075-0161 (Print), ISSN: 2075-017X (Online), Vol-4, No-5, Page 1-9,2012.
46. An Advanced Combined Symmetric Key Cryptographic Method using Bit manipulation, Bit Reversal, Modified Caesar Cipher(SD-REE), DJSA method, TTJSA method: SJA-I Algorithm, Somdip dey, Joyshree Nath, Asoke Nath, **International Journal of Computer Applications(IJCA 0975-8887, USA), Vol. 46, No.20, Page- 46-53,May, 2012.**
47. Green Computing Endeavor in Higher Educational Institutes – a noble initiative towards Sustainable IT Infrastructure, Shalabh Agarwal, Archana Vimal, Saima Ghosh, Asoke Nath, **Journal of Computing(USA), Vol 4, issues 5, May, ISSN-9617, Page-217-222, 2012.**
48. Advanced Steganography Algorithm Using Randomized Intermediate QR Host Embedded with Any Encrypted Secret Message : ASA\_QR Algorithm, Somdip dey, Kalyan Mondal, Joyshree Nath, Asoke Nath, **International Journal of Modern Education and Computer Science, No.6, Page 59-67, 2012.**
49. Ultra Encryption Standard Modified(UES) Version-I: Symmetric Key Cryptosystem with Multiple Encryption and Randomized Vernam Key using generalized Modified Vernam Cipher Method, Permutation method and Columnar Transposition Method, Satyaki Roy, Navajit Maitra, Shalabh Agarwal, Joyshree Nath, Asoke Nath, **International Journal of Modern Education and Computer Science, No.7, Page 31-41(2012).**
- 50 Ultra Encryption Standard(UES) Version-III: Advanced Symmetric Key Cryptosystem with Bit-level Encryption Algorithm, Satyaki Roy, Navajitb Maitra, Shalabh Agarwal, Joyshree Nath, Asoke Nath, **International Journal of Modern Education and Computer Science, No.7, Page 50-56(2012).**
51. Modified Caesar Cipher method applied on Generalized Modified Vernam Cipher method with feedback, MSA method and NJJSAA method: STJA Algorithm, Somdip Dey, Joyshree Nath and Asoke Nath, **Proceedings of International Conference Worldcomp 2012 held at Las Vegas, USA, FCS-12, Page-112 – 119(2012).**
52. Ultra Encryption Standard(UES) Version-II: Symmetric key Cryptosystem using generalized modified vernam cipher method, permutation method, columnar transposition method and TTJSA method, Satyaki Roy, Navajit Moitra, Joyshree Nath, Shalabh Agarwal and Asoke Nath, **Proceedings of International Conference Worldcomp 2012 held at Las Vegas, USA, FCS-12, Page-97 – 104(2012).**
53. Data hiding algorithm using two-way encryption and embedding in a cover file – A new method for sending password or confidential message, Joyshree Nath , Saima Ghosh and Asoke Nath, **Proceedings of International Conference Worldcomp 2012 held at Las Vegas, USA, IPCV-12, Page-414 – 420(2012).**

54. A New Technique to Hide Encrypted Data in QR Codes<sup>TM</sup>, Somdip Dey, Joyshree Nath and Asoke Nath, **Proceedings of International Conference Worldcomp 2012 held at Las Vegas, USA, ICOMP-12, Page-94 – 101(2012).**
55. Design of a Laser Controlled Keyboard for Physically Challenged People., Ayan Paul, Pramit Dey, Dipanjan Saha and Asoke Nath, **Proceedings of International Conference Worldcomp 2012 held at Las Vegas, USA, IPCV Page-425-431 (2012).**
56. Ultra Encryption Algorithm(UEA): Bit level Symmetric key Cryptosystem with Randomized Bits and Feedback Mechanism, **International Journal of Computer Applications(IJCA) USA, Vol-49, No.5, Page-34-40(2012).**
57. Ultra Encryption Standard(UES) Version-IV: New Symmetric Key Cryptosystem with bit-level columnar Transposition and Reshuffling of Bits, Satyaki Roy, Navajit Maitra, Joyshree Nath, Shalabh Agarwal and Asoke Nath, **International Journal of Computer Applications(IJCA)(0975-8887) USA Volume 51-No.1.,Aug, Page. 28-35(2012).**
58. Bit Level Encryption Standard(BLES) : Version-I, Neeraj Khanna, Dripto Chatterjee, Joyshree Nath and Asoke Nath, **International Journal of Computer Applications (IJCA)(0975-8887) USA Volume 52-No.2.,Aug, Page.41-46(2012).**
59. Bit Level Encryption Standard(BLES) : Versiob-II, Gaurav Bhadra, Tanya Bala, Samaik Banik, Joyshree Nath and Asoke Nath, **Proceedings of IEEE International Conference WICT-2012 held at IITM-K, Trivandrum Oct 30 to Nov 1, 2012, Page No. 121-127(2012).**
60. Modern Encryption Standard(MES) version-I : An Advanced Cryptographic Method, Somdip Dey, Asoke Nath, **Proceedings of IEEE International Conference WICT- 2012 held at IITM-K, Trivandrum Oct 30 to Nov 1, 2012, Page No. 242-247(2012).**
61. A new algorithm for Quantitative deciphering of pre-mature MiRNAs using some Statistical Parameters, Joyshree nath, Asoke Nath, **Proceedings of IEEE International Conference WICT-2012 held at IITM-K, Trivandrum Oct 30 to Nov 1, 2012, Page No. 595-601(2012).**
62. Digital Divide: A Comprehensive Approach to Integrate State and Community Experiences into ICT Policy Framework from Indian Perspective, I. Maria Joseph, Asoke Nath, **Proceedings of IEEE International Conference WICT-2012 held at IITM-K, Trivandrum Oct 30 to Nov 1, 2012, Page No. 383-388(2012).**
63. Bit Level Generalized Modified Vernam Cipher Method with Feedback, **International Journal of Advanced Computer Research(ISSN(print):2249- 7277 ISSN(online): 2277-7970), Volume-2, Number-4 Issue-6, Page-24-30, Dec(2012).**
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**2013:**
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77. Integration of Massive Open Online Education(MOOC) System with in\_Class Room Interaction and Assessment and Accreditation: An extensive report from a pilot study” , I. Maria Joseph, Asoke Nath, **Proceedings of International conference Worldcomp 2013 held at Las Vegas, USA in Jul 22-25, 2013. Proceedings Page 103-111(2013)**
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84. Modern Encryption Standard version IV(MES-IV): Asoke Nath, Payel Pal, **International Journal of Advanced Computer Research, Vol-2, Number-3, issue-11, Sept, pp 216-223(2013).**
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233. Asoke Nath , Srijita Kabasi , Kasturi Chakraborty , Sriya Sarkar, “ **Handwritten English Character Recognition Using Edge Detection, Segmentation and Pattern Matching**”, **International Journal of Engineering Science Invention (IJESI) ISSN (Online): 2319 – 6734, ISSN (Print): 2319 – 6726 [www.ijesi.org](http://www.ijesi.org) ||Volume 7 Issue 6 Ver IV || June 2018 || PP 60-66.**
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235. Deep Kumar Ganguli, Asoke Nath, “**Use of Facial Recognition for Authorizing Transactions made through Automataed Teller Machine**”, **International Journal of Advance research in Computer Science and Management Studies(IJARCSMS, ISSN: 2321-7782, e-ISJN: A4372-3114, Impact factor: 7.328), Vol-6, Issue-10, Page: 46-52, October,2018.**
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244. Tanuj Sur, Asoke Nath, **"An Innovative Method to Calculate the Economic Development Index of Important Cities in west Bengal from Satellite Imagery", International Journal of Computer Science and Engineering(IJCSE), UGC approved Journal, ISSN:2347-2693, Vol-7, Issue-4, Page-411-417, April, 2019.**
245. Asoke Nath, Suchandra Datta, Soutik Kumar Majumdar, **"Bit Level Encryption Algorithm Using Chaos Version 1.0(BLEAUC-1.0)", International Journal of Computer Science and Engineering(IJCSE), UGC approved Journal, ISSN:2347-2693, Vol-7, Issue-4, Page-451-456, April, 2019.**
246. Asoke Nath, Tejash Datta , Faisal Ahmed , Nitin Gupta **"Scope and Challenges in Data Visualisation: Presentation of Data in a Graphical Format", International Journal of Computer Science and Engineering(IJCSE), UGC approved Journal, ISSN:2347-2693, Vol-7, Issue-5, Page-1596-1601, May, 2019.**
247. Asoke Nath, Sourya Saha, Sarthak Gupta, Nilarghya Das, **"Enhancing Security of ATM Transactions via Debit Cards", International Journal of Computer Science and Engineering(IJCSE), UGC approved Journal, ISSN:2347-2693, Vol-7, Issue-9, Page-152-157, September, 2019.**
248. Jufishan Boksha, Romita Mondal, Soumi Mitra, Asoke Nath, **"A Proposed Model of Advanced Security System in ATM : Implementation of Face Recognition and Finger Print Recognition", International Journal of Computer Science and Engineering(IJCSE), UGC approved Journal, ISSN:2347-2693, Vol-7, Issue-10, Page-15-20, October, 2019.**

## **2020:**

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250. Asoke Nath, Sankar Das, Oishi Majumder, Adrija Saha, Monimoy Ghosh, “A New Bit Level Positional Encryption Algorithm(NBLPEA ver-1), **International Journal of Computer Science and Engineering(IJCSE)**, UGC approved Journal, ISSN:2347-2693, Vol-8, Issue-4, Page-167-172, April 2020.
251. Manoj Kumar Srivastav, Asoke Nath, “Mathematical Description of Social Distancing to Prevent Transmission of COVID-19 between Human to Human”, **International Journal of scientific Research in Computer Science, Engineering and Information Technology(IJSRCSEIT)**, Vol-6, Issue-3, ISSN-2456-3307, PP-762-771, May-June(2020). (UGC Approved Journal:64718(Ex), Impact Factor=6.135.)
252. Asoke Nath, Ankita Kedia, Sunnada Pal, Moumita Sen, “Advanced Symmetric Key Cryptography Algorithm : Application of Pseudo Biotic CAN Method(ASKCA ver-1.0)”, **International Journal of scientific Research in Computer Science, Engineering and Information Technology(IJSRCSEIT)**, Vol-6, Issue-3, ISSN-2456-3307, PP-884-895, May-June(2020). (UGC Approved Journal:64718(Ex), Impact Factor=6.135.)

## **2021:**

253. Shalabh Agarwal, Asoke Nath, “ A Comprehensive Study on Scope and Challenges in Digital Inheritance”, **International Journal of scientific Research in Computer Science, Engineering and Information Technology**, ISSN:2456-3307([www.ijsrcseit.com](http://www.ijsrcseit.com)), doi:<https://doi.org/10.32628/CSEIT217225>(UGC approved Journal), Vol-7, Issue-2, Page: 98-104, March-April(2021).
254. Asoke Nath, Annie Chakraborty, Soumyamaraj Maitra, “New Bit Level Positional Encryption Algorithm(NBPLEA Ver-2)”, “**International Journal of Scientific in Computer Science, Engineering and Information Technology(IJSRCSEIT)**”, ISSN:2456-3057([www.ijsrcseit.com](http://www.ijsrcseit.com)), Online ISSN: 2456-3307, doi: <https://doi.org/10.32628/CSEIT217350>, UGC Journal Number:64718, Impact Factor=6.135, Vol-7, issue-3, Page number 245-257(May 22, 2021).
255. Asoke Nath, Rupamita Sarkar, Swastik Mitra, Rohitaswa Pradhan, “Designing and Implementing Conversational Intelligent Chat-bot Using Natural Language Processing”, “**International Journal of Scientific in Computer Science, Engineering and Information Technology(IJSRCSEIT)**”, ISSN:2456-3057([www.ijsrcseit.com](http://www.ijsrcseit.com)), Online ISSN: 2456-3307, doi: <https://doi.org/10.32628/CSEIT217351>, UGC Journal Number:64718, Impact Factor=6.135, Vol-7, issue-3, Page number 262-266(May 22, 2021).

256. Asoke Nath, Soham Mondal, Raj Deb, Akash Das, “Data Hiding and Retrieval method using LSB substitution Algorithm”, “International Journal of Scientific in Computer Science, Engineering and Information Technology(IJSRCSEIT)”, ISSN:2456-3057(www.ijsrcseit.com), Online ISSN: 2456-3307, doi: <https://doi.org/10.32628/CSEIT217352>, UGC Journal Number:64718, Impact Factor=6.135, Vol-7, issue-3, Page number 266-279(May 22, 2021).

257. Asoke Nath, Soham Mondal, Raj Deb, Akash Das, “An Efficient Cross\_Lingual BERT Model for Text Classification and Named Entity Extraction in Multilingual Dataset”, “International Journal of Scientific in Computer Science, Engineering and Information Technology(IJSRCSEIT)”, ISSN:2456-3057(www.ijsrcseit.com), Online ISSN: 2456-3307, doi: <https://doi.org/10.32628/CSEIT217353>, UGC Journal Number:64718, Impact Factor=6.135, Vol-7, issue-3, Page number 280-286(May 22, 2021).

#### **Book Edited:**

1. “Applied Approach to Privacy and Security for the Internet of Things”, Edited by Parag Chatterjee, Emmanuel Benoist and Asoke Nath, IGI Global, United States, Published in October 2020. Total number of chapters=12, number of pages=295.

#### **Book Chapters Published:**

1. Sreeparna Mukherjee, Asoke Nath, “Web Service Clustering and data Mining in SOA System”, Chapter-11, IGI Global, Published on 3/2/2017, Page: 157-177.
2. Triparna Mukherjee, Asoke Nath, “Big Data Analytics With Service Oriented Architecture”, Chapter-15, IGI Global, Published on 3/2/2017, Page: 216-234.

#### **Invited Keynote address/Tutorial/lecture Presented in National and International Conference:**

1. Title of the Tutorial : “Introduction to Cryptography”. Delivered in Worldcomp-2011 held at Las Vegas from 18-21 (2011) on 20/07/2011 from 6:00PM-9:00PM in Ball Room No.4, Monte Carlo Resort, Las Vegas, Nevada, USA.
2. Title of the Tutorial : “Cryptography and Network Security” delivered in World Congress WICT 2011 held at Mumbai University Dec 11-14(2011) held on 11/12/2011 from 4:50PM-6:20PM.
3. Title of the Tutorial : “Introduction to Cryptography” delivered in National Conference on Recent Advances in Communication, Control and Computing Technology-RACCCT 2012, 29-30 March held at Surat, Gujarat.
4. Title of the Tutorial : “Basics of Cryptography and Network Security” delivered in International Conference Worldcomp 2012 held at Las Vegas on 17/07/2012 from 6:00PM-9:00PM in Silver Room, Monte carlo Resort, Las Vegas, USA.
5. Presented one day invited seminar on “Introduction to Cryptography and Network Security” at Najrul Mancha, Belgharia, Kolkata BCA, MSc(IT), MCA students and staff members of Brainware Consultancy Pvt. Ltd on 24/01/2013 from 11:00AM-4:00PM.
6. Title of Tutorial : “Introduction to Cryptography and Network Security” delivered in International conference Worldcomp 2013 held at Las Vegas on 22/07/2013

**from 6:00PM-9:00PM in Montecristo 4, Hotel Tropicana, Las Vegas, USA.**

7. Delivered Key Note Address “Cryptography and Network Security” at International Conference on Emerging Trends, Technology and Research (ICETTR-2013) held at Nagpur, September 21-22(2013).
8. Delivered Lecture on “MATLAB” in Short Course on Computational Tools and Open Source Software , organized by Academic staff college, Burdwan University on 3<sup>rd</sup> September, 2013.
9. Delivered Tutorial on “Introduction to Cryptography and Network Security” in **IEEE International Conference : WICT 2013 held at Hanoi in Dec 15-18, 2013.**
10. Delivered Keynote address on “Introduction to Cryptography and Network Security” in **IEEE International Conference : ICMIRA 2013 held at SMVDU in Dec 21-23, 2013.**
11. Delivered invited Lecture on Recent Trends in Computers : **Green Computing, Finite State Automation and Network Security and Cryptography in FEFA 2013 organised by Department of Mathematics in Presidency University, Kolkata on 27-28-th of Dec 2013.**
12. Delivered invited Tutorial on “Introduction to Cryptography and Network Security” in **Worldcomp 2014 held at Las Vegas, USA in July 21-24,2014.**
13. Delivered invited lecture on “MOOCs in Higher Education Institution – A case study in Indian Context” in 1 day seminar on “Higher Education – Issues and Challenges” held at IGNOU Kolkata Regional Centre, Bikash Bhavan on 11-th Nov 2014.
14. Delivered Invited Talk on “Introduction to Cryptography and Network Security” in **IEEE International Conference on Computational Intelligence and Communication Networks(ICCICN-2014)” held at Hotel Pride, Newtown, Kolkata, Nov 14-16,2014**
15. Delivered Invited Talk on “Introduction to Cryptography and Network and Network Security” in **IEEE International Conference CSNT-2015 held at Gwalior, Apr 04-06, 2015.**
16. Delivered Invited Tutorial on “Introduction to Cryptography and Network Security” in **International conference Worldcomp 2015 held at Las Vegas, US, July 27,2015.**
17. Delivered Invited Tutorial on “Application of MATLAB in Science and Engineering” in **International conference Worldcomp 2015 held at Las Vegas, US, July 28,2015.**
18. Delivered Invited Lecture on “Introduction to Green Computing” in Department of Computer Applications, Sikkim University, Gangtok, Sikkim on 28/08/2015 in Seminar Hall.
19. Delivered Invited short Course on “Introduction to Cryptography and Network Security” **IEEE International conference ICGCIot 2015 held at Galgotias College of Engineering & Technology (GCET) ,Greater Noida, India**
20. Delivered Invited Tutorial on “Introduction to Cryptography and Network Security” in **IEEE International Conference in Computational Intelligence and Communication Networks(ICRCICN 2015) held on 21/11/2015 in Indismart Hotel, Salt Lake City, Kolkata.**
21. Delivered Invited talk on “Introduction to Cryptography and Network Security” in **IEEE International Conference on “Computational Intelligence and Communication Networks(CICN 2015)” held at Jabalpur in Gyan Ganga Institute of Technology in Dec 12-14, 2015.**
22. Delivered Invited talk on “Introduction to Cryptography and Network security” in **IEEE International conference on “Communication Systems and Network Technologies(CSNT 2017)” held at Indian Institute of Information Technology, Nagpur on November 12, 2017.**

**Country Visited:**

1. Las Vegas, USA in July 2010 to attend Worldcomp 2010 held at Monte Carlo Resort from 12/07/2010 to 15/07/2010.
2. Las Vegas, USA in July 2011 to attend Worldcomp 2011 held at Monte Carlo Resort from 18/07/2011 to 21/07/2011.
3. Bangkok, Thailand in 22/07/2010-26/07/2010 to attend conference of St. Xavier's College Alumni.
4. Las Vegas, USA in July 2012 to attend Worldcomp 2012 held at Monte Carlo Resort from 16/07/2012 to 19/07/2012.
5. Las Vegas, USA in July 2013 to attend Worldcomp 2013 held at Hotel Tropicana from 22/07/2012 to 25/07/2012.
6. Hanoi, Vietnam in Dec 2013 to attend IEEE International conference WICT 2013 held in Dec 15-18, 2013.
7. Las Vegas, USA in July 2014 to attend Worldcomp 2014 held at Monte Carlo Resort from 21/07/2014 to 24/07/2014.
8. Las Vegas, USA in July 2015 to attend Worldcomp 2015 held at Monte Carlo Resort from 27/07/2015 to 30/07/2015.
9. Sri Lanka in April 9-13, 2016 to attend Graduation ceremony of JRS.
10. Visited London, Belgium, Netherlands, Germany, Italy, Austria, Switzerland, France from 23/10/2017 to 11/11/2017.

### **Awards Obtained :**

1. Best paper award was given for presenting paper title "Multi Way Feedback Encryption Standard(MWFES) : Ver-I " in International Conference on Emerging Trends, Technology and Research (ICETTR-2013) held at Nagpur, September 21-22(2013).
2. Received Achievement award in International Conference Worldcomp 2014 held at Las Vegas, US in July 21-24, 2014.
3. Received Achievement award in International Conference Worldcomp 2015 held at Las Vegas, US in July 27-30, 2015.
4. Received "Adarsh Vidya Saraswati Rastriya Puraskarer" on May 7, 2018 by Glacier Journal Research Foundation, Global Management Council, Ahmedabad, Gujrat.
5. Received "Rashtriya Gaurav Award" from India International Friendship Society, New Delhi on June 2, 2018.
6. Received "ASIA PACIFIC International Educational Excellence Award" for outstanding achievements and remarkable role in the field of Education on 15/2/2019 at Bangkok given by Achievers Association for health & Educational growth New Delhi.
7. Received "Life Time education Excellence award" for outstanding achievements in chosen field of activity at New Delhi on 4/4/2019 by Achievers Association for Health & Educational Growth
8. Received "Bharat Ratna Dr. Abdul Kalam Excellence Gold Medal Award -2019" on 18-th October, 2019 at Citadel Hotel, Bangalore by All India Achievers & Research Academy.

### **Members in Editorial Board/Reviwer Committee of On-line Journals:**

1. An International Journal of Advanced Computer Technology(IJACT) : ISSN 2320-0790

2. IPASJ International Journal of Computer Science(IJCS). ISSN : 2321-5992, Impact Factor : 1.328.
3. International Journal of Technological Exploration and Learning(IJTEL). ISSN : 2319-2135. (Member in Reviewer Committee).
4. International Journal of Engineering Research. ISSN: 2371-7758.
5. International Journal of Enterprise Computing and Business Systems. ISSN : 2230-8849.
6. Digital Contents and Applications.
7. International Journal of Computational Science and Information Technology(IJCSITY). ISSN: 2320-7442.
8. International Journal of Computer Science and Management Research. ISSN : 2278-733X.
9. International Journal of Application or Inovation in Engineering and Management(IJAIEM). ISSN : 2319-4847. Impac Factor: 2.379.
10. Wudpecker Journals.
11. International Journal of Modern Engineering Research(IJMER). ISSN: 2249-6645.
12. International Journal of Emerging Trends & Technology in Computer Science(IJETTCS). ISSN: 2278-6856. Impact factor: 2.524.
13. International Journal of Modern Education and Computer Science(IJMECS). ISSN : 2075-017x.
14. IndianJournals.com
15. Journal of Global Research in Computer Science(JGRCS). ISSN : 2229-371X.
16. The World Academy of Research in Science and Engineering(WARSE): International Journal of Emerging Trends in Engineering Research(IJETTR).
17. International Journal of Computer Applications(IJCA). ISSN : 0975-8887.
18. International Journal of Computer Engineering Science.
19. IOSR Journal of Engineering . ISSN: 2250-3021.
20. Current Trends in Technology & Sciences. ISSN : 2279-0535. Impact factor: 5.10(Index Copernicus value).
21. International Journal of Electronics Communication and Computer Technology(IJECCT). ISSN: 2249-7838.
22. International Journal of Computer Communication & Information Technology(IJCCIT).
23. International Journal of Digital Contents and Applications(IJDCA). ISSN: 22878505.
24. International Journal of Advanced Computer Science and Applications(IJCSA).
25. International Journal of Recent Development in Engineering and Technology(IJRDET). ISSN: 2347-6435.
26. International Journal of Emerging Technology and Advanced Engineering.
27. International Journal of Computer Science and Information Security(IJCSIS).
28. International Journal of Marketing and Technology. ISSN: 2249-1058.
29. International Journal of Enterprise Computing and Business Systems. ISSN : 2230-8849. Impact factor: 1.232.
30. International Journal of Innovative Research in Advanced Engineering(IJIRAE). ISSN: 2349-2163. Impact Factpr: 0.585. (Member in Reviewer board).
31. American International Journal of Contemporary Scientific Research.
32. International Journal of Advanced Computer Research(IJACR). ISSN: 2277-7970. Impact factor: 1.863.
33. International Journal of Computer and Information Technology(IJCIT). ISSN: 22790763. Impact: 0.687.(Member of Reviewer Board).

**UGC Refreshers Course Attended:**

1. “Theoretical Aspects of Computer Science”, held from 11/01/2007 to 02/02/2007 at Jadavpur University.
2. “Wireless Ad Hoc Sensor Networks”, held from 04/01/2010 to 23/01/2010 at Jadavpur University.

**Orientation Programme of MCA/BCA counselor:**

1. Attended “Orientation Program for the Academic Counsellors of MCA/BCA/CIC Program”, held at IGNOU Regional Centre, Bhubaneswar on 24-th and 25-th of September 2011.

**Conference, Seminars, Workshops Attended:**

1. IEEE International conference WICT-2011 held at Mumbai University Dec 11-14, 2011.
2. “IEEE International Conference on Computational Intelligence and Communication Networks(CICN-2011)” held at Gwalior 7-9 Oct, 2011.
3. “IEEE International Conference on Communication Systems and Network Technologies(CSNT-2011)” held at SMVDU, Katra(Jammu) 3-5 June,2011
4. “IEEE International Conference on Computational Intelligence and Communication Networks(CICN-2010)” held at RGPV, Bhopal 26-28 Nov,2010.
5. “Two day workshop on Role of Computing in Better Governance (CBG 2011)” held BIT, Meshra, Kolkata 30-31 July 2011.
6. “One-day seminar on Mobile Application Development Awareness” held at Techno India Auditorium, Saltlake, Kolkata 06/08/2011.
7. “Workshop on SPSS” held at St. Xavier’s College, Dec-2010 to Jan-2011.
8. “Workshop on FPGA Based VLSI System Design” held at CSI, Kolkata 17/01/2009.
9. “Training of Teachers in e-learning” sponsored by DST,Govt. of India, held at DOEACC Centre, JU,18/04/2005-20/05/2005.
10. “Workshop on Modeling and Simulation of Wireless Networks” held at University of Calcutta, Kolkata, 18/12/2008 to 20/12/2008.
11. “Workshop on Trends in Information Technology(Trit-2001)” held at Radio Physics & Electronics, University of Calcutta, 05/02/2001 to 10/02/2001.
12. “National Convention on data Communication on the theme: Internet : Opportunities & challenges by 2000 AD” held 13-14 September 1997 at CSI, Patna.
13. “Seminar on Matlab & Simulink for Engineering Education:” conducted by Mathworks India, held at Hotel Taj Bengal, Kolkata on 24/08/2010.
14. “Oracle9i Database Administration Fundamentals I R2” conducted by Oracle University, held at Bangalore, Nov 2008.

15. "Oracle 7 with Developer/2000 For Client server Applications" conducted by Oracle Software India Ltd, held at Kolkata 08/06/1998-14/07/1998.
16. "UGC Sponsored National Seminar-Cum-Workshop on Evaluation System at Undergraduate Level" held at St. Xavier's College 01/04/2007-02/04/2007.