

PROFESSOR SUNIL KARFORMA

- 1. Name and full correspondence address: Professor (Dr.) Sunil Karforma, Department of Computer Science, The University of Burdwan, West Bengal-713104
- 2. Email(s) and contact number(s): sunilkarforma@yahoo.com, skarforma@cs.buruniv.ac.in, (+91) 7384456418, (+91) 94745-53590
- **3. Institution**: The University of Burdwan
- **4. Date of Birth:** 07-Nov-1971
- **5. Gender** (**M/F/T**): M
- 6. Category Gen/SC/ST/OBC: Gen
- 7. Whether differently abled (Yes/No): No
- 8. Academic Qualification (Undergraduate Onwards)

	Degree	Year	Subject	University/Institution	% of marks
1.	Ph.D. (A Study on the Application of Cryptography in E- Commerce)	2006	Computer Science	The University of Burdwan	
2.	Masters Of Computer Science and Engineering (1998)	1998	Computer Science and Engineering	Jadavpur University	First Division
3.	Bachelor Of Computer Science And Engineering	1996	Computer Science and Engineering	Jadavpur University	First Division
4.	Higher Secondary	1990	Science	West Bengal Council of Higher Secondary Education (WBCHSE)	

5.	Madhyamik	1988	All Subjects	West Bengal	Board of	First Division
				Secondary (WBBSE)	Education	
				(II DDDL)		

9. Ph.D thesis title, Guide's Name, Institute/Organization/University, Year of Award.

Ph.D thesis title : A Study on the Application of Cryptography in E-Commerce

Guide's Name : Prof. Sripati Mukhopadhyay

Institute/Organization/University : The University of Burdwan

Year of Award: 2006

10. Work experience (in chronological order).

S.No.	Positions held	Name of theInstitute	From	То	Pay Scale
1.	LECTURER	THE UNIVERSITY OF BURDWAN	2000	2006	8275.00
2.	LECTRER(SR.)	THE UNIVERSITY OF BURDWAN	2006	2009	10275.00
3.	READER	THE UNIVERSITY OF BURDWAN	2009	2012	12325.00
4.	ASSOCIATE PROFESSOR	THE UNIVERSITY OF BURDWAN	2012	2017	(at Rs.9000 AGP in PB Rs.37,400- 67,000)
5.	PROFESSOR	THE UNIVERSITY OF BURDWAN	2017	14.12.2022	(HAG Scale/ PB of Rs.67,000-79,000)
6.	DEAN (FACULTY OF SCIENCE) &PROFESSOR	THE UNIVERSITY OF BURDWAN	15.12.2022	PRESENT	(HAG Scale/ PB of Rs.67,000-79,000)

11. Detail of patents.

S.No	Patent Title	Name of Applicant(s)	Patent No.	Award Date	Agency/Countr y	Status
		Shrabani Sutradhar, Prof. Sunil Karforma, Dr. Rajesh Bose, Dr. Sandip Roy	2023/08112	27.03.2024	Republic of South Africa	Granted

2.	AN ON-DEMAND WATER RESERVER TRACKING SYSTEM AND A METHOD THEREOF	Prof. Sunil Karforma, Indranil Sarkar, Dr. Rajesh Bose, Dr. Sandip Roy	2022/02101	25.05.2022	South Africa	Granted
3.	Ein System zur Erkennur von krankheiten in Blattern - A system for detecting diseases in leaves	gProf. Sunil Karforma, Indranil Sarkar, Dr. Rajesh Bose, Dr. Sandip Roy, Partha Pratim Dasgupta, Priyanka Bhattacharya, Raktim Kumar Dey	G11831DE	11.11.2022	German	Granted
4.	An indoor localization system using a wireless local area network	Prof. Sunil Karforma, Indranil Sarkar, Dr. Rajesh Bose, Dr. Sandip Roy, Partha Pratim Dasgupta, Subhadip Nandi, Raktim Kumar Dey		09.11.2022	German	Granted
5.			, , , , , , ,	28.09.2022	South Africa	Granted

12. Books/Reports/Chapters/General articles etc.

S.No	Title	Author's Name	Publisher	Year of Publication
1.	Impact of Generative AI in	5	IGI Global	2024
	Education 2030	Kumbhakar, Nabanita		
		Indra, Sunil Karforma		
2.	Selective Text Encryption	Subhajit Adhikari, Sunil	Springer Nature	2023
	Using RSA for E-	Karforma	Singapore	
	governance Applications			
	for Pdf Document			
3.	Telecardiology COVID-19	oydeep Dey, Anirban	Academic Press	2022
	cryptographic system:	Bhowmik, Sunil		
	Security reinforcement	Karforma		
	through metaheuristics and			
	artificial neural networks			

4.	SymmetricKeyandAnirban Bhowmik, SunilJohn Wiley & Sons,Artificial Neural NetworkKarforma, Joydeep DeyInc.With Mealy Machine: ANeotericModelofCryptosystem for CloudSecurityInc.	2021
5.	ApproximationalgorithmAnirbanBhowmik,SunilSpringerandlinearcongruence:aKarforma,JoydeepDey,Internationalstate-of-artapproachinArindamSarkarPublishinginformationsecurityissuestowardsinternetofvehicles </td <td>2021</td>	2021
6.	Approximation Algorithm and Linear Congruence: An Approach forOptimizing the Security of IoT Based Healthcare Management SystemAnirban Bhowmik, Sunil Inc.John Wiley & Sons, Inc.	2021
7.	Linear Congruence Anirban Bhowmik, Sunil Springer Generator and Chaos Based Karforma, Joydeep Dey, International Encryption Key Generation Arindam Sarkar Publishing for Medical Data Security in IoT Based Health Care System	2021
8.	Internet of Things e- healthJoydeep Dey, ArindamAcademic Press revolution: securedSarkar, Sunil Karforma transmission of homeopathic e- medicines through chaotic key formation	2021
9.	Secured session key- based Arindam Sarkar, Joydeep Springer Singapore e-health: Biometric blended Dey, Sunil Karforma with salp swarm protocol in telecare portals	2021
10.	A Novel Approach in Anirban Bhowmick, Sunil CRC Press Communication Security of Karforma, Joydeep Dey, Internet-of-Vehicles Using Arindam Sarkar the Concept of Recurrence Relation and Symmetric Key	2020
11.	Fuzzy-based session key as restorative power of Karforma, Joydeep Dey, symmetric keySymmetric key Arindam Sarkar encryption for secured wireless communication	2020

12.	A Secure Data-Hiding Approach Using Particle Swarm Optimization and Pixel Value Difference	-	IGI Global	2016
13.		Ambalika Ghosh, Sunil Karforma	Springer India	2015
14.	Effectiveness of proximity- based outlier analysis in detecting profile-injection attacks in E-Commerce Recommender Systems	Chakraborty, Sunil	Springer India	2015
15.	A Study on Multi-agent Systems in Cognitive Radio	Sandeep Sharma, Sunil Karforma, Sripati Mukhopadhyay	Springer Singapore	2019
16.		Nikhilesh Barik, Suni Karforma	Springer India	2015
17.	e	Karforma	IGI Global	2014

13. Professional Recognition/ Award/ Prize/ Certificate, Fellowship received.

S.No	Name of Award	Awarding Agency	Year
1.	one-day seminar titled "Women in Space Engineering,"	Academy of Technology in association with IEEE Women in Engineering (WIE) Kolkata Section.	2024
2.	Acted as coordinator for RC IN ICT IN TEACHING AND RESEARCH (20.02.2024 to 04.03.2024)	The University of Burdwan	2024
3.	Acted as Guest of Honour'International Conference on Global Disease Biology: Perspective Biotechnology'	The University of Burdwan	2024
4.	Dean, Faculty Council of PG Studies in Science, The University of Burdwan	The University of Burdwan	2023
5.	Acted as coordinator for REFRESHER COURSE IN RESEARCH METHODS AND ONLINE PEDAGOGY 31.01.2023 TO 13.02.2023)	The University of Burdwan	2023
6.	UGC Project Evaluator	UGC	2022

7.	Member of the Selection Committee of the West Bengal College Service Commission	West Bengal Govt.	2019 and 2022
8.	Acted as subject expert on the selection committee for the purpose of career of the Govt. Gen. Degree College, Singur	The University of Burdwan	2022
9.	Acted as subject expert on the selection committee for the purpose of career of the teachers of the Netaji Mahavidyalaya	The University of Burdwan	2021
10.	Acted as resource person in International webinar on Artificial Intelligence and Data Science,	Asutosh College, Kolkata	2021
11.	Acted as a resource person in IQAC- Sponsored Sponsored Two-Day National Webinar on "Mathematics for Computing: Recent Trends".		2021
7.	Acted as Chairperson in Two Days International Conference on	Department of Computer Science & Engineering,	2022
12	Machine Intelligence & Network Data Security-2022	NSHM Institute of Engineering & Technology, Durgapur	
13.	Acted as Chairperson in 1st International Conference on Innovations and Computer Science	The University of Burdwan	2018
14.	Acted as Organizing Secretary in 3rd International Conference on Computing and Systems 2016, Department of Computer Science	The University of Burdwan	2016
15.	Acted as Joint Secretary at Second International Conference on Computing & Systems	The University of Burdwan	2013
16.	Acted as Chair Person at Second National Conference on Computing & Systems	The University of Burdwan	2012
12.	Acted as Chair Person at International Conference on Computing & Systems	The University of Burdwan	2010
13.	Acted as Organizing Secretary at National Conference on Computing & Systems	The University of Burdwan	2010

S.No	Author(s)	Title	Name of Journal	Volum e	Page	Publisher	Year
	Subhajit Adhikari, Anirban Panja, Sunil Karforma	ICSPRNG: Ikeda assisted Cryptographically Secure Pseudo Random Number Generator	Tools and		1-19	Springer US	2024
	Subhadip Nandi, Sunil Karforma, Rajesh Bose, Sandip Roy	21 IoT-based Smart Door System for Contactless Face Mask and Body Temperature Monitoring in Public Spaces: A Secure Framework for	Proceedings of the International Conference on Security, Surveillance and Artificial Intelligence (ICSSAI-2023		205	CRC Press	2024
	Dulal Kumbhakar, Subhajit Adhikari, Sunil Karforma	encryption algorithm	Multimedia Tools and Applications		1-24	Springer US	2024
	Karforma, Rajesh Bose, Sandip Roy, Sonia	Enhancing identity and access management using Hyperledger Fabric and OAuth 2.0: A block- chain-based approach for security and scalability for healthcare industry	Internet of Things and Cyber-Physical Systems	4	49-67	Elsevier	2024
5.	Simanta Hazra, Sunil Karforma, Abhishek Bandyopadhya y, Avishek Banerjee, Debasis Chakraborty	Deep Learning-Based	Journal of Survey in Fisheries Sciences	10	411-419	Journal of Survey in Fisheries Sciences	2023
6.	Simanta Hazra, Sunil Karforma, Abhishek Bandyopadhya y, Sayantani Chakraborty, Debasis Chakraborty	Yield Prediction	Journal of Survey in Fisheries Sciences		7096-7102	Journal of Survey in Fisheries Sciences	2023
7.		A Dynamic Step-wise Tiny Encryption Algorithm with Fruit Fly Optimization for Quality of Service improvement in healthcare	Healthcare Analytics	3	100177	Elsevier	2023

14. Publications (List of papers published in SCI, Scopus, WoS, UGC Care, etc. Journals.

8.	Dulal Kumbhakar, Kanchan Sanyal, Sunil Karforma	An optimal and efficient data security technique through crypto-stegano for E-commerce	Multimedia Tools and Applications		1-14	Springer US	2023
9.	Indranil Sarkar, Sunil Karforma, Priyanka Bhattacharya, Rajesh Bose, Sandip Roy	Agronomy with IoT Devices: The Smart Solution for Detection of Diseases of Betel Leaves	U U	11(1)	98-109	Universal Journal of Agricultural Research	2023
10.	Simanta Hazra, Sunil Karforma, Abhishek Bandyopadhyay, Sayantani Chakraborty, Debasis Chakraborty	Prediction of Crop Yield Using Machine Learning Approaches for Agricultural Data				Computer Engineering and Intelligent Systems	2023
11.	Shrabani Sutradhar, Sunil	Enhancing identity and access management using Hyperledger Fabric and OAuth 2.0: A block- chain-based approach for security and scalability for healthcare industry	Cyber-Physical Systems			Elsevier	2023
12.	Subhajit Adhikari, Sunil Karforma	Medical Image Encryption Method Using Cubic-Sin- Logistic-Tent Chaotic Pseudo-Random Number Sequence-Based Substitution	SN Computer Science	4	338	Springer Nature Singapore	2023
13.	Joydeep Dey, Salim Ahmad, Sunil Karforma	Establishment of Neural Series Transmission Keys (NSTKs) and Security in	Communicatio ns	129	2455-2480	Springer US	2023
14.	Subhajit Adhikari, Sunil Karforma	An Efficient Image Encryption Method Using Henon-Logistic- Tent Chaotic Pseudo Random Number Sequence	Wireless Personal Communicatio ns	129	2843-2859	Springer US	2023
15.	Soumen Mondal, Anirban Panja, Sunil Karforma	AN EFFICIENT E- CERTIFICATE MANAGEMENT SYSTEM IN E- LEARNING USING BLOCKCHAIN	SCIENCE AND CULTURE			SCIENCE AND CULTURE	2023
16.	Saranagata Kundu, Anirban Panja, Sunil Karforma	DETECTION OF MELANOMA SKIN CANCER USING HYBRID MACHINE LEARNING TECHNIQUES	SCIENCE AND CULTURE			SCIENCE AND CULTURE	2023

17.	Joydeep Dey, Anirban Bhowmik, Sk Samim Ferdows, Bappaditya Chowdhury, Sunil Karforma		Accelerating Strategic Changes for Digital Transformation in the Healthcare Industry		293-305	Academic Press	2023
18.	Anirban Bhowmik, Sunil Karforma	Hybrid intelligence-based cryptosystem: security and privacy enhancement in telemedicine system	Intelligence for		315-342	Academic Press	2023
19.	Moumita Kumar Roy, Sunil	IMPLEMENTATION OF E-BANKING TRANSACTION SYSTEM USING ELGAMAL DS	Journal of Data Acquisition and Processing	38	1883	Journal of Data Acquisition and Processing	2023
20.	Anirban Bhowmik, Sunil Karforma	Isomorphic encryption and coupled ANN with Mealy machine: a cutting edge data security model for cloud computing environment	Knowledge and Information Systems	65	133-162	Springer London	2023
21.	Joydeep Dey, Anirban Bhowmik, Arindam Sarkar, Sunil Karforma, Bappaditya Chowdhury	19 telemedicine: an	Wireless Personal Communicatio ns	122	3167-3204	Springer US	2022
22.	Subhajit Adhikari, Sunil Karforma	encryption method for e-	Multimedia Tools and Applications	81	759-784	Springer US	2022
23.	Anirban Bhowmik, Sunil Karforma	Linear feedback shift register and integer theory: a state-of-art approach in security issues over e-commerce	Electronic Commerce Research	22	1-21	Springer US	2022

24.	Joydeep Dey,	Neural perceptron &	Multimedia	81	17747-	Springer US	2022
	Anirban Bhowmik, Sunil Karforma	strict lossless secret sharing oriented cryptographic science:	Tools and Applications		17778		
		fostering patients' security in the "new normal" COVID-19 E-					
		Health					
25.	Indranil Sarkar,	Ubiquitous on-demand Water Reservoir	Univ. J. Agric.	10	193-203	Univ. J. Agric.	2022
	Sunil Karforma, Rajesh Bose, Sandip Roy	Tracking System for Smart Village	Res.			Res.	
26.	Anirban Bhowmik, Sunil Karforma	An Approach of Secret Sharing Technique Based on Convolution Neural Network and DNA Sequence for Data Security in Wireless Communication	Wireless Personal Communicatio ns	124	3413-3444	Springer US	2022
27.	Joydeep Dey, Anirban Bhowmik, Sunil Karforma	Telecardiology COVID-	Digital Innovation for Healthcare in COVID-19 Pandemic		351-389	Academic Press	2022
28.	Joydeep Dey, Sunil Karforma, Bappaditya Chowdhury	Episode of Dual Neural Genetic Firefly (DNGF) Transmission Key Generation in New Normal Mode of COVID-19 Second Wave Telepsychiatry	Journal of The Institution of Engineers (India): Series B	103	1127-1146	Springer India	2022
29.	Joydeep Dey, Sunil Karforma	Unsynchronized Ann & Genetics Guided Telecardiology Security	Journal of Mathematical Sciences & Computational Mathematics	5		Society for Makers, Artists, Researchers and Technologists	2022
30.		An Efficient And Secure Fingerprint Based Authentication Scheme Using Elliptic Curve Cryptography	Webology	19		Webology	2022
31.	Ambalika Ghosh, Sunil Karforma	Object Oriented Analysis And Design Of El Gamal Digital Signature Algorithm For Document Authentication In E- Learning	••	19		Webology	2022
32.	P.K. Samanta, K.A. Islm, A. Panja, S. Mondal, S. Karforma	AN IMPROVED AUTHENTICATION SCHEME FOR E- LEARNING	Vidyabharati International Interdisciplinar y Research			Vidyabharati International Interdisciplinar y Research	2022
		DOCUMENTS USING	Journal			Journal	

		ELLIPTIC CURVE DIGITAL SIGNATURE ALGORITHM					
33.	Pradip K. Samanta , Anirban Panja, Soumen Mondal, Dr. Sunil Karforma	1	INTERNATIO NAL JOURNAL OF SPECIAL EDUCATION	37		INTERNATIO NAL JOURNAL OF SPECIAL EDUCATION	2022
34.	PK Samanta, S Karforma, A Bhowmik	ECC WITH SOFT COMPUTING: DESIGN OF A CRYPTOSYSTEM FOR DATA SECURITY IN E- LEARNING SYSTEM		13		Vidyabharati International Interdisciplinar y Research Journal	2022
35.	Subhajit Adhikari Sunil Karforma	A novel audio encryption method using Henon– Tent chaotic pseudo random number sequence	Journal of Information	13	1463-1471	Springer Singapore	2021
36.	Joydeep Dey, Arindam Sarkar, Sunil Karforma	perspective: Teledental	nternational Journal of Information Technology	13	593-601	Springer Singapore	2021
37.	Arindam Sarkar, Joydeep Dey, Sunil Karforma	clinical signals ciphering	Wireless Personal Communicatio ns	117	727-745	Springer US	2021
38.	Anirban Bhowmik, Sunil Karforma, Joydeep Dey, Arindam Sarkar	state-of-art approach in	vehicles and its applications in autonomous		149-172	Springer International Publishing	2021
39.	Tanmoy Halder, Debasish Chakraborty, Ramen Pal, Sunita Sarkar, Somnath Mukhopadhyay, Nishtha Roy, Sunil Karforma	from satellite images	Innovations in Systems and Software Engineering		1-10	Springer London	2021
40.	Joydeep Dey, Bappaditya Chowdhury, Arindam Sarkar, Sunil Karforma	Secured Telepsychiatry for Geriatric Patients (TGP) in the Face of COVID-19 2nd Wave	Journal of Mathematical Sciences & Computational Mathematics	2	564-571	Society for Makers, Artists, Researchers and Technologists	2021
41.	Joydeep Dey, Bappaditya Chowdhury, Arindam Sarkar, Sunil Karforma	Patients' Data Security in Telemedicine Consultation in a "New Normal" Post COVID-19 Perspective	Mathematical Sciences &	2	422-425	Society for Makers, Artists, Researchers and Technologists	2021

42.	Anirban Bhowmik, Sunil		International Journal of	10	65-76	International Journal of	2021
	Karforma, Joydeep Dey	of-art technique for secret sharing				Reconfigurabl e and Embedded Systems	
			(ISTEE)			(IJRES)	
43.	Joydeep Dey, Arindam Sarkar, Bappaditya Chowdhury, Sunil Karforma	telepsychiatry session key origination upon	SN Computer Science	2	1-16	Springer Singapore	2021
44.	Joydeep Dey, Arindam Sarkar, Sunil Karforma, Bappaditya Chowdhury	Metaheuristic secured transmission in Telecare Medical Information	Journal of Ambient Intelligence and Humanized Computing		1-22	Springer Berlin Heidelberg	2021
45.	Siddhartha Sen, Sripati Mukhopadhyay, Sunil Karforma	A Blockchain based Framework for Property Registration System in E- Governance.	International Journal of	13		International Journal of Information Engineering & Electronic Business	2021
46.	Anirban Bhowmik, Joydeep Dey, SUNIL KARFORMA	A novel double tier cryptographic system (nDTCS) to reinforce patients' privacy in contemporary COVID-19 telemedicine					2021
47.	Dulal Kumbhakar, Kanchan Sanyal, Sunil Karforma	A secure and efficient authentication in E- commerce	Biosc Biotech Res Comm	14	93-99	Biosc Biotech Res Comm	2021
48.	Joydeep Dey, Arindam Sarkar, Sunil Karforma	Internet of Things e- health revolution: secured transmission of homeopathic e-medicines through chaotic key formation	Computational		317-337	Academic Press	2021
49.	Anirban Bhowmik, Sunil Karforma	Approximation Algorithm and Linear Congruence: An Approach forOptimizing the Security of IoT- BasedHealthcare Management System	Security Issues and Privacy Concerns in Industry 4.0 Applications		55-88	John Wiley & Sons, Inc.	2021
50.	Anirban Bhowmik, Sunil Karforma, Joydeep Dey	Symmetric Key and Artificial Neural Network With Mealy Machine: A Neoteric Model of Cryptosystem for Cloud Security	Techniques and Analytics for Cloud Security		81-101	John Wiley & Sons, Inc.	2021
51.	Pradip Kumar Samanta, Dulal	Evolution of E-Education	Design Engineering		14129- 14142	Design Engineering	2021

		System Using ICT Infrastructure					
52.	Dulal	An Efficient and Fast Security Technique for Online Services and Applications	Design Engineering		10494- 10500	Design Engineering	2021
53.	Anirban Bhowmik, Sunil Karforma, Joydeep Dey, Arindam Sarkar	Linear Congruence Generator and Chaos Based Encryption Key Generation for Medical Data Security in IoT Based Health Care System	Advanced Soft Computing Techniques in Data Science, IoT and Cloud Computing		53-79	Springer International Publishing	2021
54.			SN Computer Science	2	426	Springer Singapore	2021
55.	Pradip Kumar Samanta, Dulal Kumbhakar, Sunil Karforma	e-Education using ICT.	Turkish Online Journal of Qualitative Inquiry	12		Turkish Online Journal of Qualitative Inquiry	2021
56.	Soumi Mukherjee, Arindam Sarkar, Sunil Karforma	Post Covid-19 Bio- Imaging: Cancer Detection & Secured Procurement through Dual Neurons Genetic Key (DNGK) in Advanced Medical Sciences	Journal of Mathematical Sciences & Computational Mathematics	2	478-492	Society for Makers, Artists, Researchers and Technologists	2021
57.	Ambalika Ghosh, Subhajit Adhikari, Sunil Karforma		Advances in Mechanics	9	1051-1060	Advances in Mechanics	2021
58.	,		Journal of Mathematical Sciences & Computational Mathematics	2	305-316	Society for Makers, Artists, Researchers and Technologists	2021
59.	Arindam Sarkar, Joydeep Dey, Sunil Karforma	Secured session key- based e-health: Biometric blended with salp swarm protocol in telecare portals			713-725	Springer Singapore	2020

60.	Anirban Bhowmik, Sunil Karforma, Joydeep Dey, Arindam Sarkar	Fuzzy-based session key as restorative power of symmetric key encryption for secured wireless communication	Proceedings of the 2nd International Conference on Communicatio n, Devices and		171-183	Springer Singapore	2020
			Computing: ICCDC 2019			~	
61.	Anirban Bhowmik, Sunil Karforma, Joydeep Dey, Arindam Sarkar	A way of safeguard using concept of recurrence relation and fuzzy logic against security breach in wireless communication	Journal of Computer	2	297-311	International Journal of Computer Science Engineering	2020
62.	Anirban Bhowmik, Sunil Karforma	A Key Generation technique using concept of Recurrence Relation and Fuzzy logic against Security Breach in Wireless Communication	EasyChair	Issue: 3620		EasyChair	2020
63.	Anirban Bhowmick, Sunil Karforma, Joydeep Dey, Arindam Sarkar	A Novel Approach in Communication Security of Internet-of-Vehicles Using the Concept of Recurrence Relation and Symmetric Key	Augmented Intelligence Toward Smart Vehicular Applications		123-146	CRC Press	2020
64.	Dulal	COMPARATIVE STUDY OF MACHINE LEARNING ALGORITHMS FOR	European Journal of Molecular & Clinical Medicine	7	6806-6814	European Journal of Molecular & Clinical Medicine	2020
65.	Sk Samim Ferdows, Joydeep	MATHEMATICAL MAT SCORE PREDICTION & POST- MAT ACADEMIC PERFORMANCE ANALYSIS ON MANAGEMENT STUDENTS	Journal of Mathematical Sciences & Computational Mathematics	1	531-542	Society for Makers, Artists, Researchers and Technologists	2020
66.	· · · · · · · · · · · · · · · · · · ·	SECURITY ISSUES IN SUPPLY CHAIN MANAGEMENT SYSTEM	Advance and Innovative Research	67		Advance and Innovative Research	2020
67.	Arindam Sarkar, Joydeep Dey, Minakshi Chatterjee, Anirban Bhowmik, Sunil Karforma	Neural soft computing based secured transmission of intraoral gingivitis image in e- health care	Indonesian Journal of Electrical Engineering and Computer Science	14	178-184	Indonesian Journal of Electrical Engineering and Computer Science	2019
68.	Anirban Bhowmik, Joydeep Dey,	Computational intelligence based lossless regeneration	IAES International Journal of	8	197	IAES Institute of Advanced Engineering	2019

	Arindam Sarkar, Sunil Karforma	(CILR) of blocked gingivitis intraoral image transportation	Artificial Intelligence			and Science	
69.	Arindam Sarkar, Joydeep Dey, Anirban Bhowmik, Jyotsna Kumar Mandal, Sunil Karforma	Computational intelligence based neural session key generation on e-health system for ischemic heart disease information sharing			23-30	Springer Singapore	2019
70.	Tanmoy Halder, Sunil Karforma, Rupali Mandal	A block-based adaptive data hiding approach using pixel value difference and LSB substitution to secure e- governance documents	Journal of Information Processing Systems	15	261-270	Journal of Information Processing Systems	2019
71.	Joydeep Dey, Anirban Bhowmik, Arindam Sarkar, Sunil Karforma	Privileged authenticity in reconstruction of digital encrypted shares	IAES International Journal of Artificial Intelligence (IJ- AI)	8	175-180	IAES International Journal of Artificial Intelligence (IJ-AI)	2019
72.	Joydeep Dey, Sunil Karforma, Arindam Sarkar, Anirban Bhowmik	Metaheuristic guided secured transmission of E-prescription of dental disease	International Journal of Computer Sciences and Engineering	7	179-183	International Journal of Computer Sciences and Engineering	2019
73.	Anirban Bhowmik, Arindam Sarkar, Sunil Karforma, Joydeep Dey	A symmetric key based secret data sharing scheme	International Journal of Computer Sciences and Engineering	7	188-192	International Journal of Computer Sciences and Engineering	2019
74.	Ajit Kumar Singh Akash Nag, Sunil	Implementation of Multi- Agent based Digital Rights Management System for Distance Education (DRMSDE) using JADE		10		Science and Information (SAI) Organization Limited	2019
75.	Arindam Sarkar, Joydeep Dey, Sunil Karforma, Anirban Bhowmik	Notice of retraction coupled tree parity	Aptikom Journal on Computer Science and Information Technologies	4	27-36	Aptikom Journal on Computer Science and Information Technologies	2019
76.	Sandeep Sharma, Sunil Karforma, Sripati Mukhopadhyay	A Study on Multi-agent	First International Conference on Artificial Intelligence and Cognitive Computing: AICC 2018	515- 527		Springer Singapore	2019
77.	Arindam Sarkar,	Coupled tree parity	APTIKOM	4	27-36	APTIKOM	2019

	Joydeep Dey, Sunil Karforma,	machines: synchronized secured session key	Journal on Computer			Journal on Computer	
	Anirban	based encryption in	Science and			Science and	
	Bhowmik	online transaction	Information			Information	
			Technologies			Technologies	
78.	Soham	Securing Packet	Security,		255-288	Springer	2019
	Bandyopadhyay,	Transmission Through	Privacy and			International	
	Sunil Karforma	Trusted Shortest Network				Publishing	
		Path Using Fuzzy	Environment				
		Forecasting for Mobility of MANET Nodes					
79.	Atanu Sarkar,	Image steganography	International		15477-	International	2018
	Sunil Karforma	using password based	Journal of		15483	Journal of	
		encryption technique to	Applied			Applied	
		secure e-banking data	Engineering Research			Engineering Research	
80.	Atanu Sarkar,	A new pixel selection	International	5	120-125	International	2018
00.	Sunil Karforma	technique of LSB based	Research	5	120-125	Research	2010
	5 unin Kurtonnu	steganography for data	Journal of			Journal of	
		hiding	Computer			Computer	
			Science			Science	
			(IRJCS)			(IRJCS)	
81.		An Efficient Clustering	International	10		International	2018
	Karforma	Algorithm for Spatial	Journal of			Journal of	
		Datasets with Noise.	Modern			Modern	
			Education &			Education &	
			Computer Science			Computer Science	
82.	M Das Nath, S	Object-Oriented	International	6		International	2018
02.	Karforma	Modelling Of Kerberos	Journal of	Ŭ		Journal of	2010
		Based Authentication	Computer			Computer	
		Process In E-Banking	Sciences and			Sciences and	
		Transaction	Engineering			Engineering	
83.	Atanu Sarkar,	A Steganographic	International	6		International	2018
	Sunil Karforma	Approach Using New	Journal of			Journal of	
		Pixel Selection	Computer			Computer	
		Combined With Hash	Sciences and			Sciences and	
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84.	Soham	Improving the	International	10	16-26	International	2018
0	Bandyopadhyay,	performance of fuzzy	Journal of	10	10 20	Journal of	2010
	Sunil Karforma	minimum spanning tree	Computer			Computer	
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		through P-node fuzzy	Information			Information	
			Security			Security	
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85.	Tanmoy Halder,	A New Information	2018 5th IEEE	1-5		IEEE	2018
		Hiding Approach using	Uttar Pradesh				
	Anup Pasari, Sunil Karforma	Haar-Transformation	Section				
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			Electronics and				

			Engineering (UPCON)				
86.	Akash Nag, Sunil Karforma	Secondary Structure of Elapid Toxins using Multi-Layer Perceptrons and Kohonen Networks	International Journal on Future Revolution in Computer Science & Communicatio n Engineering	4		Akash Nag, Sunil Karforma	2018
87.	Akash Nag, Sunil Karforma	Adaptive dictionary- based compression of protein sequences	I.J. Education and Management Engineering	5	1-6	I.J. Education and Management Engineering	2017
88.	SOUMENDU Banerjee, SUNIL Karforma	efficient LSB based	International journal of mechanical and production engineering research and development (IJMPERD), ISSN	2249- 6890		International journal of mechanical and production engineering research and development (IJMPERD), ISSN	2017
89.	Akash Nag, Sunil Karforma	ProMot: A Tool for the Fast Discovery of Functional Motifs from Aligned Protein Sequences	Indian Journal of Science and Technology	10	25	Indian Journal of Science and Technology	2017
90.	Soumendu Banerjee, Sunil Karforma	LEARNING USING	International Journal of Advanced Research in Computer Science	8		International Journal of Advanced Research in Computer Science	2017
91.	Soumendu Banerjee, Kh Amirul Islam, Sunil Karforma, Akash Nag	TRANSMISSION IN E- LEARNING THROUGH NATURAL	International Journal of Engineering Technologies and Management Research	4		Soumendu Banerjee, Kh Amirul Islam, Sunil Karforma, Akash Nag	2017
92.	Soumendu Banerjee, Sunil Karforma, Akash Nag	Applying LSB Steganography for Disseminating Academic Testimonials in eLearning and its Authentication aspects	International Journal of Computer Trends and Technology (IJCTT)	47		International Journal of Computer Trends and Technology (IJCTT) –	2017
93.	Kh Amirul Islam, Soumendu Banerjee, Sunil Karforma, Akash Nag	0 0	International Journal on Future Revolution in Computer Science &	17	234-237	International Journal on Future Revolution in Computer Science &	

		Approach	Communicatio n Engineering			Communicatio n Engineering	
94.	Sandeep Sharma, Sripati Mukhopadhyay, Sunil KarformaZ	Cognitive Radio, the Future of Wireless Communication: An Overview	International Journal of Information Science and Computing	3	81-90	Renu Publishers	2016
95.	Soumendu Banerjee, Sunil Karforma	Based Analysis of DSA algorithm for authentication of Study	International Journal of Information Science and Computing	3	1-7	Renu Publishers	2016
96.	Akash Nag, Sunil Karforma	Classifying Snake Toxins Using Decision Trees	Computer Science	5		Computer Science	2016
97.	SOUMENDU	Object Oriented Analysis and Design of Digital		28	158-162	Journal of Ultra scientist of Physical Sciences	2016
98.	Akash Nag, Sunil Karforma	Snake Toxin Classification using Neural Networks	International Journal of Computer Trends and Technology	40	78-83	International Journal of Computer Trends and Technology	2016
99.	Akash Nag, Sunil Karforma	A Heuristic Approach to High-Speed Multiple Sequence Alignment for Phylogenetic Tree Construction	IPASJ International Journal of Computer Science	4	10-15	IPASJ International Journal of Computer Science	2016
100.	Soumendu Banerjee, Sunil Karforma	Authentication of Certificate in E-Learning Using Secret Key Digital Watermarking		3	53-58	International Journal of Information Science and Computing	2016
101.	Parthasarathi Chakraborty, Sunil Karforma	Application of Trust and Distrust in Recommender System: A Study		139		Foundation of Computer Science	2016
102.	Tanmoy Halder, Sunil Karforma, Rupali Mandal	A novel data hiding approach by pixel-value- difference steganography and optimal adjustment to secure e-governance documents	Indian Journal of Science and Technology	8	1-7	Indian Journal of Science and Technology	2015
103.	Akash Nag, Sunil Karforma	•	arXiv preprint arXiv:1508.063 70			arXiv preprint arXiv:1508.06 370	2015
104.	Karforma	A Space-Efficient Approach towards Distantly Homologous Protein Similarity Searches	arXiv preprint arXiv:1508.065 61			arXiv preprint arXiv:1508.06 561	2015
105.	Ambalika Ghosh, Sunil Karforma	Object-oriented Modeling of IDEA for E-	Intelligent Computing and	105- 113		Springer India	2015

106.	Soumendu Banerjee, Sunil Karforma	learning Security OBJECT ORIENTED METRIC BASED ANALYSIS OF	Applications: Proceedings of the International Conference on ICA, 22-24 December 2014 IJSTM	8		IJSTM	2015
		ELGAMAL DIGITAL SIGNATURE ALGORITHM FOR STUDY MATERIAL AUTHENTICATION					
	Parthasarathi Chakraborty, Sunil Karforma	Effectiveness of proximity-based outlier analysis in detecting profile-injection attacks in E-Commerce Recommender Systems	Information Systems Design and Intelligent Applications: Proceedings of Second International Conference INDIA 2015	2	255-263	Springer India	2015
108.	Akash Nag, Sunil Karforma	A Randomized Algorithm for Fast Sequence Alignment	Proceedings of the ICSTM			Proceedings of the ICSTM	2015
109.	Akash Nag, Sunil Karforma	Identifying neurotoxins in snake venoms through automated generation of probabilistic consensus motifs	Proceedings of SUSTECH		716-722	Proceedings of SUSTECH	2015
110.	Nikhilesh Barik, Sunil Karforma	Secure e-Learning Framework (SeLF)	Information Systems Design and Intelligent Applications: Proceedings of Second International Conference INDIA 2015, Volume 2	2	691-698	Springer India	2015
111.	Abhishek Roy, Sunil Karforma	International Journal of Advanced Research in Computer Science and Software Engineering	, International Journal of Advanced Research in Computer Science and Software Engineering 4(4)	4		International Journal of Advanced Research in Computer Science and Software Engineering 4(4)	2014
112.	Abhishek Roy, Sunil Karforma	1	International Society of Thesis Publication	3	31-37	International Society of Thesis Publication	2014

113.	Abhishek Roy, Sunil Karforma		Journal of Research in Electrical and Electronics Engineering (ISTPJREEE) International Journal of scientific research and management	2	1212-1221	Journal of Research in Electrical and Electronics Engineering (ISTPJREEE) International Journal of scientific research and management	2014
114.	Abhishek Roy, Sunil Karforma	E-Governance To E- Commerce: A Smart Transition	management (IJSRM) International Journal of Emerging Research in Management and Technology (IJERMT)	3	82-86	management (IJSRM) International Journal of Emerging Research in Management and Technology (IJERMT)	2014
115.	T Halder, S Karforma	A novel e-governance data hiding approach combining LSB- steganography and cryptography	Indian Science Cruiser	28	44-49	Indian Science Cruiser	2014
116.	Sanjay Banerjee, Sunil Karforma	Object-Oriented Modeling of DIPRM System for E-Commerce Transaction	Computer Engineering and Intelligent Systems	5		Computer Engineering and Intelligent Systems	2014
117.	Ambalika Ghosh, Sunil Karforma	Object oriented modeling of DSA for authentication of student in E-learning	•	3		Int. J. Sci. Res	2014
118.	Nikhilesh Barik, Sunil Karforma	Utilization of Multimedia Database with secure	International Conference on Education and e-Learning (EeL). Proceedings		110	International Conference on Education and e-Learning (EeL). Proceedings	2014
119.	Tanmoy Halder, Sunil Karforma, Rupali Mandal	E-govornence Data Security using Steganography, Concepts, Algorithms and Analysis	International Journal of Applied Science and Engineering	2	41-54	New Delhi Publishers	2014
120.	Sunil Karforma, Soumendu Banerjee	OBJECT ORIENTED MODELING OF RSA DIGITAL SIGNATURE FOR SECURITY IN E- LEARNING	International Journal of Advanced Technology in Engineering and Science	2		International Journal of Advanced Technology in Engineering and Science	2014
121.	Abhishek Roy, Sunil Karforma	UML based modeling of ECDSA for secured and smart E-Governance system	Computer Science & Information Technology (CS & IT-		207-222	Computer Science & Information Technology (CS & IT-	2013

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122.	Parthasarathi Chakraborty, Sunil Karforma	Detection of profile- injection attacks in recommender systems using outlier analysis	Procedia Technology	10	963-969	Elsevier	2013
	*	Implementation of authentication in E- Governance-An UML based approach	LAP Lambert Academic Publishing			LAP Lambert Academic Publishing	2013
124.	Abhishek Roy, Sunil Karforma	Coupling and cohesion analysis for implementation of authentication in E- Governance	ACEEE Conference Proceedings Series	2	544-554	ACEEE Conference Proceedings Series	2013
125.	T Halder, S Karforma	A LSB-Indexed steganographic approach to secure E-governance data	Proceedings of the 2nd International Conference on Computing and System (ICCS)		158	Proceedings of the 2nd International Conference on Computing and System (ICCS)	2013
126.		Uml implementation of e-tendering using secret key digital watermarking	Journal of	1	72-75	International Journal of Computers & Distributed Systems (ISSN 2278-5183)	2012
127.	Sanjay Banerjee, Sunil Karforma	On Designing a Secure E-Commerce Transaction Management System–A UML Based Approach	J. Innov. Syst. Des. Eng	2	102-108	J. Innov. Syst. Des. Eng	2012
128.	Nikhilesh Barik, Sunil Karforma, JK Mondal, Arpita Ghosh	Towards Design and Implementation of Space Efficient and Secured Transmission scheme on EGovernance data	arXiv preprint arXiv:1212.340 4			arXiv preprint arXiv:1212.34 04	2012
129.	Nikhilesh Barik, Sunil Karforma	Object oriented modelling of secured E- assessment system	Int. J. Sci. Eng. Res.(IJSER)	3		Int. J. Sci. Eng. Res. (IJSER)	2012
130.	Nikhilesh Barik, Sunil Karforma	Risks and remedies in e- learning system	arXiv preprint arXiv:1205.271 1			arXiv preprint arXiv:1205.27 11	2012
131.	Abhishek Roy, Sunil Karforma	A Survey on digital signatures and its applications	Journal of Computer and Information Technology	3	45-69	Journal of Computer and Information Technology	2012
132.	Abhishek Roy, Sunil Karforma	Object Oriented approach of Digital certificate based E-Governance mechanism	Conference Proceedings Series	3	380-386	ACEEE Conference Proceedings Series	2012
133.	Anamul Hoda, Abhishek Roy, Sunil Karforma	Application of ECDSA for security of transaction in E-Governance	Proceedings of Second National Conference on Computing and		281-286	Proceedings of Second National Conference on Computing	2012

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			organized by			2012)	
			the Department			organized by	
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134.	Arindam Sarkar,	Object Oriented	arXiv preprint			arXiv preprint	2012
134.		5	arXiv:1204.179			arXiv:1204.17	2012
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		generation for e-					
		governance security					
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135.		5	Global Journal	12		Global Journal	2012
			of Computer			of Computer	
		for E-governance security				Science and	
			Technology			Technology	
136.	Sirsendu	Applications of public	Bharati	4		435-438	2012
	Sarbavidya, Sunil	key watermarking for	Vidyapeeth's				
	Karforma	authentication of job-card					
			Computer				
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			Management				
137.	Sirsendu		Journal of	2	38-41	Journal of	2011
137.	Sarbavidya	Survey	Global	2	50 11	Global	2011
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			Computer			Computer	
			Science			Science	
120	Abbiebelt Dev	Risk and Remedies of E-	Oriental	4	329-339	Oriental	2011
138.				4	329-339		2011
	Sunil Karforma	governance Systems	Journal of			Journal of	
			Computer			Computer	
			Science &			Science &	
			Technology			Technology	
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139.		Object oriented	International	26	24-33	International	2011
	I .	modelling of RSA digital				Journal of	
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		security	Engineering			Engineering	
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140.	Abhishek Roy,	A survey on E-	International	8	50-62	International	2011
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	Sunil Karforma, Jayanta Pattanayak	Object oriented modeling of IDEA for E- governance security	Conference on Computing and Systems	1020	263-269	Proceedings of International Conference on Computing and Systems	2010
146.	Sanjay Banerjee, Sunil Karforma	A prototype design for DRM based credit card transaction in E- commerce.	Ubiquity		2:1	Ubiquity	2008
147.	Sanjay Banerjee, Sunil Karforma, Santanu Ghosh	A DRM based credit card transaction in e- commerce system	41st National Convention of CSI			41st National Convention of CSI	2006
148.	Sunil Karforma	A study on the application of cryptography in E_commerce	Shodhganga			INFLIBNET Centre	2005
149.	Sripati Mukhopadhyay, AM Midda, Sunil Karforma	INTERNET: a Cryptosystem for Internet security	INFLIBNET Centre			INFLIBNET Centre	2002
150.	Karforma, S., & Banerjee, S	Object Oriented Modeling of Digital Certificate in E-learning	International Journal of Emerging Trends and Technology in Computer Science	3	205-211	International Journal of Emerging Trends and Technology in Computer Science	
151.	Roy, Abhishek, and Sunil Karforma	Data Modeling of a multifaceted electronic card based secure E- Governance system	Chapter No: 12 of Book Emerging Mobile and Web 2.0 Technologies for Connected E-Government		280-299	Zaigham Mahmood, University of Derby, United Kingdom (UK	
152.	Karforma, Sunil, and Soumendu Banerjee	OBJECT ORIENTED MODELING OF ELGAMAL DIGITAL SIGNATURE FOR AUTHENTICATION OF STUDY MATERIAL IN E-LEARNING SYSTEM					

15. Ph.D. Awardee

Sl. No.	Name	Thesis Title
1	Dr. Sanjay Banerjee	DIPRMS In ECommerce System – An UML Approach
2	Dr. Partha Sarathi Chakraborty	Studies on scalable, secure and trust-aware E-Commerce Recommender Systems.
3	Dr. Abhishek Roy	Studies on Information Security In E-Governance Using Cryptography
4	Dr. Nikhilesh Barik	Studies on Security Issues In E-Learning
5	Dr. Akash Nag	Computational Analysis of Snake Venom Proteins in The Elapidae Family: A Study and New Dimension.
6	Dr. Soumendu Banerjee	A Study on Authentication Issues in E-Learning
7	Dr. Tanmoy Halder	A Study on Steganography Based Authentication of Information
8	Dr. Ajit Kumar Singh	Digital Right Management For Distance Education
9	Dr. Kh. Amirul Islam	Steganographic Approach to Secure Resources of E-Learning
10	Dr. P.K. Samanta	Studies of secured E- Education system with special reference to rural India.
11	Dr. Ambalika Ghosh	Studies on Security of E-Learning Using Cryptography
12	Dr. Dulal Kumbhakar	A Study Data on Security in E-Commerce Using Elliptic Curve Cryptosystem

16. Additional Academic and Administrative Responsibilities:

- 1. Acted As External Member of Board of Studies In Different State Universities Such As Binod Bihari Mahto Koyalanchal University (Dhanbad), Visva Bharati University, Kazi Nazrul University, Bankura University, Rani Rashmoni Green University, University of Gour Banga, Barasat State University
- 2. Acted as Examiner, Moderator and Paper Setter in Different Universities like Jadavpur University, Kalyani University, North Bengal University, etc.
- 3. Acting as a Member of Board of Research Studies in Vidyasagar University and Brainware University.
- 4. Acted as Invigilator in UGC-NET/ SET exams (2012-13, 2013-14, 2014-2015, and 2023-2024).
- 5. Evaluated Many Ph.D. Thesis of Different Universities.
- 6. Acting as the Member for the Adhoc Board of UG & PG Engineering courses under The University of Burdwan.
- 7. Participated in a Syllabus Committee of Several Universities (Green University, Harichand Guruchand University, Sadhu Ram Chand Murmu University).
- 8. Acting as a Member of Board of Research Studies, B.U.
- 9. Acting as a Member of UGBOS & PGBOS, Department of Computer Science, B.U