Prof. Dr. Gandharba Swain

B.Sc (Hons), Berhampur Univ; M.C.A, VSSUT, Burla; M.Tech (CSE), NIT, Rourkela; PhD (CSE), SOA Univ.

Head- Dept of Artificial Intelligence & Data Science,

Professor in Computer Science & Engineering,

Koneru Lakshmaiah Education Foundation (Deemed to be University),

Vaddeswaram-522302, Guntur, Andhra Pradesh, India

E-Mail: gswain1234@gmail.com, gandharba.swain@kluniversity.in

Mobile No: 91-9573975571, 7978778276

- Listed among **top 2%** researchers of the world in the years 2020, 2021, 2022 and 2023 declared by Stanford University in association with Elsevier.
- Received Best Teacher award for several times
- Interested in teaching, research and academic administration

EDUCATION

PhD (2014): Computer Science and Engineering,

SOA University, Bhubaneswar, Odisha

In 2023, SOA University got NIRF Rank 15 in university category, rank 49 in research institution category, and 27 in Engineering category, In 2022, SOA University Ranked in QS world ranking

M. Tech (2004): Computer Science and Engineering, First class

NIT, Rourkela, Odisha.

In 2023, NIT Rourkela got NIRF Rank 16 in Engineering category, rank 29 in research institution category

M.C.A (1999): Computer Application, First class

VSS University of Technology (formerly known as UCE), Burla, Odisha

UCE Burla is the first Government Engineering College in Odisha established in year 1956

B.Sc. (1995): Maths, Physics, Chemistry, First Class Hons and Distinction

Berhampur University, Berhampur, Odisha

TEACHING EXPERIENCE: 24 years after MCA, 19 years after M.Tech, 9 years after PhD.

Professor (**8 Years and 6 months**)**:** From 01-06-2015 to till date.

Department of Computer Science and Engineering, KLEF, Guntur, Andhra Pradesh

Associate Professor (**9 Years**): From 01-06-2006 to 16-05-2015

Dept. of Computer Science and Information Technology, GMR Institute of Technology, Rajam, Andhra Pradesh

Assistant Professor (**2 Years**)**:** From 05-07-2004 to 31-05-2006

Dept. of Computer Science and Information Technology, GMR Institute of Technology, Rajam, Andhra Pradesh

Lecturer (**4 years and 9 months**)**:** From 01-10-1999 to 30-06-2002

Dept. of CSEA, IACR Engineering College, Rayagada, Odisha

APPRECIATIONS RECEIVED

- Received **appreciation letter** from Koneru Lakshmaiah Education Foundation for the research contribution for the year 2020.
- Received **Best Teacher Award** from Koneru Lakshmaiah Education Foundation for consistent high standards in academic practices during the academic year 2019-20
- Received **Distinguished researcher award** from Koneru Lakshmaiah Education Foundation in December 2019
- Honored with **best teacher award** on 5th September 2014 from GMR Institute of Technology, Rajam.
- Received appreciation for successfully completion of course work with commendable classroom performance and university results, for academic years 2009-10, 2010-11 at GMRIT, Rajam.
- Invited as session chair for International Conference, ICCRC-2011, 21-23 March 2011, SRM Univ, Delhi.
- Received certificate of appreciation from Department of online learning, Koneru Lakshmaiah Education Foundation for effectivelyconducting "Blockchain and Cryptocurrencies", an online non-credit course during May-June 2020.

COURSES TAUGHT (to B. Tech and M. Tech students)

- Cryptography, Blockchain, Digital Forensics,
- Computer Networks, TCP/IP Protocol Suite
- Digital Logic Design, Computer Organization, Advanced Computer Architecture
- Data Structures, Design & Analysis of Algorithms, Advanced Data Structures
- C Programming, OOPs Through C++, OOPs Through Java
- OOAD Through UML, Software Testing Methodologies, Secure Coding
- Artificial Intelligence, Multi-Agent System, Simulation and Modeling

RESEARCH EXPERIENCE: D oing research since 2010 concurrently with teaching.

- Pursued PhD in the area of "**Digital image steganography**", during 2010-2014. Have addressed several research problems like, (i) fall off boundary problem, (ii) range mismatch problem, (iii) fall in error problem, (iv) detection by RS analysis, (v) detection by pixel difference histogram analysis, and (vi) avoidance of unused blocks in adaptive PVD steganography.
- Present research interests are, (i) **watermarking for tamper detection**, and (ii) **Block chain technology**

RESEARCH IMPACT

- **Google scholar:** https://scholar.google.co.in/citations?user=HExTTRMAAAAJ&hl=en
- **Scopus:** https://www.scopus.com/authid/detail.uri?authorId=37091536600
- **Publon:** https://publons.com/researcher/2326568/dr-gandharba-swain/
- **Research gate profile:** https://www.researchgate.net/profile/Gandharba-Swain
- **Orcid Id:** https://orcid.org/0000-0001-6586-1432

PUBLICATIONS

No. of articles authored = 91

- **SCIE** and **Scopus** indexed journal articles = 24
- **ESCI** and **Scopus** indexed journal articles = 19
- **Scopus** indexed journal articles = 17
- **Scopus** indexed book chapters = 2
- **Scopus** indexed conference articles = 18
- Google scholar indexed journal articles = 11

No of books authored = 2

No of patents published = 3

OUTCOME BASED EDUCATION-EXPERIENCE

- Course handout preparation and vetting using different BTLs, TLMs, and ALMs
- Bloom's taxonomy-based session plan and question paper setting
- Uniform course content delivery in multi-section courses
- Uniform evaluation strategy in multi-section courses

ADMINISTRATIVE/ CO-CURRICULAR RESPONSIBILITIES SHOULDERED

- Examination in-charge, ISO coordinator at GMR Institute of Technology, Rajam, Andhra Pradesh, India
- NBA and NAAC coordinator at GMR Institute of Technology, Rajam, Andhra Pradesh, India
- Course coordinator for multi-section courses, at Koneru Lakshmaiah Education Foundation, AP, India
- Co-hort professor in-charge at Koneru Lakshmaiah Education Foundation, Andhra Pradesh, India
- Research group head for network Security & Forensics research group, Koneru Lakshmaiah Education Foundation, Andhra Pradesh, India
- HoD, Department of AI&DS, Koneru Lakshmaiah Education Foundation

PhDs GUIDED = 5

1. **Aditya Kumar Sahu:** Registered no. 15303152, awarded PhD from K L University in June 2020. Thesis title: Development of higher embedding capacity and lower distortion image steganography techniques using the principles of LSB, LSB matching, PVD and modulus function
2. **Smita Chaudhari**, Registered no. 163030004, awarded PhD from K L University in April 2022, Thesis Title: Cloud Data Integrity and Security Preservation using Improved Cryptographic Algorithms.
3. **Reshma Sonar,** Registered no. 14303031, awarded PhD from K L University in July 2022 under my guidance, Thesis Title: Steganography and Steganalysis Techniques based on Fall off Boundary Problem, Unused Block Problem and Multi-directional Edges.
4. **B. Nanditha,** Registered no. 15303159, awarded PhD from K L University in September 2022 under my guidance. Title of thesis: Achieving Energy Efficiency of MANET by reducing the effect of Overhearing and Congestion.

5. **Snehalata Funde,** Registered no. 163030005. Title of research work: Path hiding privacy preserving approach for classified big data. **Thesis submitted in September 2022**

SCIE INDEXED ARTICLES = 24 (12 in Q1, 9 in Q2, 2 in Q3, and 1 in Q4)

1. **Gandharba Swain**, Adaptive pixel value differencing steganography using both vertical and horizontal edges, Multimedia Tools and Applications, **Springer**, 2016, 75(21), pp.13541-13556, p- ISSN: 1380 - 7501 , e-ISSN: 1573-7721, indexed in **SCIE, SCOPUS,** IF: **2.7,** (Q1)

2. Ranjan K. Senapati, P.M.K. Prasad, **Gandharba Swain**, T.N. Shankar, Volumetric medical image compression using 3D listless embedded block partitioning, **Springer Plus**, 5(2100), pp.1-16, 2016, doi:10.1186/s40064-016-3784-y, ISSN:2193-1801, **indexed in SCOPUS, SCIE,** IF: **1.756,** (Q4)

3. Ratna Bhargavi, Ranjan K. Senapati, **Gandharba Swain**, Prasad PMK, Computerized diabetic patients image screening for lesion regions detection and grading, Biomedical Research, 2016, Special Issue: S443-S449, p-ISSN: 0970-938X , e-ISSN: 0976-1683, **indexed in SCOPUS, SCIE,** IF: **0.219,** (Q3)

4. Anita Pradhan, K. Raja Sekhar, and **Gandharba Swain**, Adaptive PVD steganography using horizontal, vertical, and diagonal edges in six-pixel blocks, Security and Communication Networks, **Wiley**, vol. 2017, pp.1-13, 2017. https://doi.org/10.1155/2017/1924618, p-ISSN: 1939-0114, e-ISSN: 1939-0122, **indexed in SCOPUS, SCIE,** IF: **1.96,** (Q2)

5. Anita Pradhan, K. Raja Sekhar, **Gandharba Swain**, Digital image steganography using LSB substitution, PVD, and EMD, Mathematical Problems in Engineering, **Hindawi**, pp.1-11, 2018, Article ID 1804953, https://doi.org/10.1155/2018/1804953, p-ISSN: 1024-123X, e-ISSN:1563-5147, **indexed in SCOPUS, SCIE,** IF: **1.43,** (Q2)

6. **Gandharba Swain,** High capacity image steganography using modified LSB substitution and PVD against pixel difference histogram analysis, Security and Communication Networks, **Wiley**, pp.1-14, 2018, Article ID 1505896, https://doi.org/10.1155/2018/1505896, p-ISSN: 1939-0114, e-ISSN: 1939-0122, **Indexed in SCOPUS, SCIE,** IF:**1.96,** (Q2)

7. **Gandharba Swain,** Adaptive and non-adaptive PVD steganography using overlapped pixel blocks, Arabian Journal for Science and Engineering, **Springer**, 43(12), pp.7549-7562, 2018, DOI: 10.1007/s13369-018-3163-9, p-ISSN:2193-567X, e-ISSN:2191-4281, **Indexed in SCOPUS, SCIE,** IF:**2.33**, (Q1)

8. **Gandharba Swain**, A data hiding technique by mixing MF PVD and LSB substitution in a pixel, Information Technology And Control, **Kaunas University of Technology**, Dec 2018, 7(4), pp.714-727, DOI 10.5755/j01.itc.47.4.19593, p-ISSN:1392-124X, e-ISSN:2335-884X, Indexed in **SCOPUS, SCIE,** IF: 0.813, **(**Q3)

9. **Gandharba Swain**, Two new steganography techniques based on quotient value differencing with addition-subtraction logic and PVD with modulus function, Optik, **Elsevier**, 180(2019), pp.807-823, 2019, ISSN: 0030-4026, Indexed in **SCOPUS, SCIE,** IF: 2.84, https://doi.org/10.1016/j.ijleo.2018.11.015, **(**Q2)

10. **Gandharba Swain,** Very high capacity image steganography technique using quotient value differencing and LSB substitution, Arabian Journal for Science and Engineering, **Springer**, April 2019, 44(4), pp.2995-3004,

DOI: 10.1007/s13369-018-3372-2, p-ISSN:2193-567X, e-ISSN:2191-4281, **Indexed in SCOPUS, SCIE,** IF:2.33, (Q1)

11. Aditya Kumar Sahu, **Gandharba Swain,** An optimal information hiding approach based on pixel value differencing and modulus function, Wireless Personal Communications, **Springer**, May 2019, p- ISSN:0929-6212, e-ISSN:1572-834X, https://doi.org/10.1007/s11277-019-06393-z, indexed in **SCOPUS, SCIE,** IF: 1.67, (Q2)

12. Aditya Kumar Sahu, **Gandharba Swain,** High fidelity based reversible data hiding using modified LSB matching and pixel difference, Journal of King Saud University- Computer and Information Sciences **Elsevier**, 2019, https://doi.org/10.1016/j.jksuci.2019.07.004, Indexed in **SCOPUS, SCIE,** IF=8.83, issn:1319-1578, (Q1)

13. P. Patro, K. Kumar, G.S. Kumar, **Gandharba Swain**, Similarity and wavelet transform based data partitioning and parameter learning fuzzy neural network, Journal of King Saud University-Computer and Information Sciences, **Elsevier**, 2020, Indexed in **SCOPUS, SCIE, IF**=8.83, issn:1319-1578, (Q1)

14. Aditya Kumar Sahu, **Gandharba Swain,** Monalisa Sahu, J. Hemalatha, Multi-directional block based PVD and modulus function image steganography to avoid FOBP and IEP, Journal of Information Security and Applications **Elsevier**, vol.58, 102808, 2021, Indexed in **SCOPUS, SCIE,** IF=4.96, ISSN: 2214-2126, (Q1)

15. Reshma Sonar, **Gandharba Swain,** Steganography based on quotient value differencing and pixel value correlation, CAAI Transactions on Intelligence Technology, 2021, **IET/Wiley**, indexed in **SCOPUS, SCIE,** IF=7.98, ISSN:2468-6557, Online ISSN: 2468-2322, (Q1)

16. **Gandharba Swain,** Anita Pradhan, Image Steganography using remainder replacement, adaptive QVD and QVC, Wireless Personal Communications, 2021, **Springer**, https://doi.org/10.1007/s11277-021-09131-6, p- ISSN:0929-6212, e-ISSN:1572-834X, indexed in **SCOPUS, SCIE,** IF: 1.67, (Q2)

17. S. Chaudhari, **Gandharba Swain**, Towards lightweight provable data possession for cloud storage using indistinguishability obfuscation, **IEEE Access**, vol. 10, pp. 31607-31625, 2022, indexed in **SCOPUS, and SCIE,**IF:3.47, ISSN: **2169-3536**, doi: 10.1109/ACCESS.2022.3159699, (Q1)

18. S N V J Devi Kosuru, **Gandharba Swain**, Naween Kumar, Anita Pradhan, Image tamper detection and correction using Merkle tree and remainder value differencing, Optik, **Elsevier**, 261(2022), 169212, https://doi.org/10.1016/j.ijleo.2022.169212, ISSN: 0030-4026, Indexed in **SCOPUS, SCIE,** IF:2.84, (Q2)

19. Dipak Bhayyaji Khadse, **Gandharba Swain,** Data hiding and integrity verification based on quotient value differencing and Merkle tree, Arabian Journal for Science and Engineering, **Springer**, 2022, p-ISSN:2193-567X, e-ISSN:2191-4281, https://doi.org/10.1007/s13369-022-06961-9, **Indexed in SCOPUS, SCIE,** IF:2.33, doi: https://doi.org/10.1007/s13369-022-06961-9, (Q1)

20. Snehalata Funde, Gandharba Swain, Big Data Privacy and Security Using Abundant Data Recovery Techniques and Data Obliviousness Methodologies, **IEEE Access**, vol.10, pp.105458-105484, 2022, indexed in **SCOPUS, and SCIE,** IF:3.47, ISSN:2169-3536, doi:10.1109/ACCESS.2022.3211304, (Q1)

21. Naween Kumar, D. Reddy Edla, Dinesh Dash, Gandharba Swain, T. N. Shankar, Energy-efficient and delay-sensitive-based data gathering technique for multi-hop WSN using path-constraint mobile element, **Wireless**

Networks, **Springer**, August 2023, indexed in **SCOPUS, and SCIE,** https://doi.org/10.1007/s11276-023-03457-8, (Q2)

22. S. N. V. J. Devi Kosuru1, Anita Pradhan, K. Abdul Basith, Reshma Sonar, Gandharba Swain, Digital Image Steganography with Error Correction on Extracted Data, **IEEE Access**, August 2023, indexed in **SCOPUS, and SCIE,** https://ieeexplore.ieee.org/document/10198401, (Q1)

23. Erukala Suresh Babu, Mekala Srinivasa Rao, Gandharba Swain, A Kousar Nikhath, Rajesh Kaluri, Fog-Sec: Secure end-to-end communication in fog-enabled IoT network using permissioned blockchain system, International Journal of Network Management, Wiley, Aug 2023, , indexed in **SCOPUS, and SCIE**, https://doi.org/10.1002/nem.2248, (Q2)

24. R Yelchuri, Alaa O Khadidos, Adil O Khadidos, A M Alshareef, G Swain, J K Dash, Deep semantic feature reduction for efficient remote sensing Image Retrieval, IEEE ACCESS, **IEEE Access**, October 2023, indexed in **SCOPUS, and SCIE,** https://ieeexplore.ieee.org/abstract/document/10285367, (Q1)

ESCI & SCOPUS INDEXED JOURNAL ARTICLES =19 (3 in Q2, 11 in Q3, and 5 in Q4)

1. **Gandharba Swain**, Saroj Kumar Lenka, A technique for secret communication using a new block cipher with dynamic steganography, International Journal of Security, and Its Applications, **SERSC**, Vol. 6, No.2, pp.1-12, **2012.** ISSN: 1738-9976, indexed in **SCOPUS**, **ESCI,** SNIP=0.497, (Q4)

2. **Gandharba Swain**, Steganography in Digital images using maximum difference of neighboring pixel values, International Journal of Security and Its Applications, **SERSC,** Vol.7, No.6, pp.285-294, **2013**, ISSN: 1738-9976, indexed in **SCOPUS**, **ESCI**, SNIP=0.497, (Q4)

3. **Gandharba Swain**, Saroj Kumar Lenka, A novel steganography technique by mapping words with LSB array, International Journal of Signal and Imaging Systems Engineering, vol.8, no.1, pp.115-122, **2015**, **Inderscience**, e-ISSN: 1748-0701, p-ISSN: 1748-0698, indexed in **SCOPUS**, **ESCI**, SNIP=0.411, (Q4)

4. **Gandharba Swain,** Digital image steganography using eight directional PVD against RS analysis and PDH analysis, Advances in Multimedia, **Hindawi**, pp.1-13, 2018, Article ID 4847098, p-ISSN:1687-5680, e-ISSN:1687-5699, Indexed in **SCOPUS, ESCI,** SNIP=0.953, https://doi.org/10.1155/2018/4847098, (Q3)

5. Aditya Kumar Sahu, **Gandharba Swain,** Digital image steganography using bit flipping, Cybernetics and Information Technologies, **DE GRUYTER**, 18(1), pp.69-80, March, 2018, p-ISSN:1311-9702, e-ISSN:1314-4081, Indexed in **SCOPUS, ESCI,** SNIP=0.953, DOI: 10.2478/cait-2018-0006, (Q2)

6. Aditya Kumar Sahu, **Gandharba Swain,** An improved data hiding technique using bit differencing and LSB matching, Internetworking Indonesia Journal, 10(1), pp.17-21, June, 2018, ISSN: 1942-9703, **Indexed in SCOPUS, ESCI,** SNIP=0.257**,** (Q4)

7. Aditya Kumar Sahu, **Gandharba Swain,** Pixel overlapping image steganography using PVD and modulus function, 3D Research, **Springer**, 9(40), pp.1-14, September, 2018, https://doi.org/10.1007/s13319-018-0188-5, e-ISSN:2093-6731, indexed in **SCOPUS**, **ESCI**, SNIP=1.384, (Q3)

8. Aditya Kumar Sahu, **Gandharba Swain,** Digital image steganography using PVD and modulo operation, Internetworking Indonesia Journal, Dec 2018, 10(2), pp.3-13, ISSN: 1942-9703, Indexed in **Scopus, ESCI**,

SNIP=0.257., (Q4)

9. Aditya Kumar Sahu, **Gandharba Swain,** A novel n-rightmost bit replacement image steganography technique, 3D Research, **Springer**, 10(2), pp.1-18, March 2019, e-ISSN:2093-6731, https://doi.org/10.1007/s13319-018-0211-x, indexed in **SCOPUS**, **ESCI**, SNIP=1.384, (Q3)

10. Aditya Kumar Sahu, **Gandharba Swain,** A novel multi-stego image based data hiding method for gray scale image, Pertanika Journal of Science & Technology, **Universiti Putra Malaysia**, May 2019, 27(2), pp.739-754, p-ISSN:0128-7680, e-ISSN:2231-8526, indexed in **SCOPUS, ESCI,** SNIP=0.48, (Q3)

11. Aditya Kumar Sahu, **Gandharba Swain,** Data hiding using adaptive LSB and PVD technique resisting PDH and RS analysis, International Journal of Electronic Security and Digital Forensics, **Inderscience**, 2019, 11(4), pp.458-476, p- ISSN:1751-911X, e-ISSN:1751-9128, Indexed in **SCOPUS, ESCI, SNIP**=0.632, DOI: 10.1504/IJESDF.2019.10021739, (Q2)

12. Aditya Kumar Sahu, **Gandharba Swain,** Reversible steganography using Dual-Layer LSB matching, Sensing and Imaging, **Springer**, 21(1), pp.1-21, 2020, https://doi.org/10.1007/s11220-019-0262-y, Indexed in **SCOPUS, ESCI,** SNIP=0.585, issn: 1557-2072, (Q3)

13. Reshma Sonar, **Gandharba Swain**, Multi-Directional Pixel difference histogram analysis based on pixel blocks of different sizes, Sensing and Imaging, **Springer**, pp.1-32, 22(11), pp.1-33, 2021, https://doi.org/10.1007/s11220-021-00334-6, indexed in **SCOPUS, ESCI,** SNIP=0.585, issn: 1557-2072, (Q3)

14. Smita Chaudhari, **Gandharba Swain,** Efficient and secure group based collusion resistant public auditing scheme for cloud storage, International Journal of Advanced Computer Science and Applications, (**SAI**) 12(3), pp.472-481, 2021, indexed in **SCOPUS, ESCI,** SNIP=0.528, ISSN:2158-107X, online ISSN: 2156-5570, (Q3)

15. Smita Chaudhari, **Gandharba Swain,** Privacy preserving dynamic provable data possession with batch update for secure cloud storage, International Journal of Advanced Computer Science and Applications, **SAI**, 12(6), pp.589-598, 2021, indexed in **SCOPUS, ESCI,** SNIP=0.528, ISSN:2158-107X, online ISSN: 2156-5570, (Q3)

16. Dipak Bhayyaji Khadse, **Gandharba Swain,** Data hiding using quotient value differencing and remainder value substitution avoiding incorrect extraction problem, Sensing and Imaging, **Springer**, 22(39), 2021, pp.1-21, https://doi.org/10.1007/s11220-021-00360-4, indexed in **SCOPUS, ESCI,** SNIP=0.585, issn: 1557-2072, (Q3)

17. Snehalata K. Funde, **Gandharba Swain,** HORAM: Hybrid oblivious random access memory scheme for secure path hiding in distributed environment, International Journal of Advanced Computer Science and Applications, **SAI**, 12(11), pp.546-553, 2021, indexed in **SCOPUS, ESCI,** SNIP=0.528, ISSN:2158-107X, online ISSN: 2156-5570, **(**Q3)

18. Reshma Sonar, **Gandharba Swain,** A hybrid steganography technique based on RR, AQVD and QVC, Information Security Journal: A Global Perspective, 2022, **Taylor and Francis**, indexed in **SCOPUS, ESCI,** SNIP=0.986, ISSN: 1939-3555 Online ISSN: 1939-3547, (Q2)

19. Snehalata K. Funde, **Gandharba Swain,** Data recovery approach with optimized Cauchy coding in distributed storage system, International Journal of Advanced Computer Science and Applications, **SAI**, 13(6), pp.620-629, 2022, indexed in **SCOPUS, ESCI,** SNIP=0.528, ISSN:2158-107X, online ISSN: 2156-5570, **(**Q3)

SCOPUS INDEXED JOURNAL ARTICLES = 17 (3 in Q2, 6 in Q3, 8 in Q4)

1. **Gandharba Swain**, Digital image steganography using nine-pixel differencing and modified LSB substitution, Indian Journal of Science and Technology, Vol.7, No.9, pp.1444-1450, 2014, ISSN print:0974-6846, e-ISSN: 0974-5645, Indexed in **SCOPUS, Zoological Record (WOS),** SNIP=0.582, **(**Q4)
   Doi: 10.17485/ijst/2014/v7i9.27

2. Aditya Kumar Sahu, **Gandharba Swain**, A review on LSB substitution and PVD based image steganography techniques, Indonesian Journal of Electrical Engineering and Computer Science, **IAES**, vol. 2, no. 3, 2016, pp. 712-719**,** p-ISSN: 2502-4752, e-ISSN: 2502-4760, indexed in **SCOPUS,** SNIP=0.513, **(**Q3)

3. K. Spurthy, Srinivas Rao T, Satyabrata P atro, T.N. Shankar, **G. Swain**, Ranjan K. Senapati, Intrusion detection system in MANETS with ELGAMAL digital signature, Far East Journal of Electronics and Communications, **Pushpa Publishing House**, 2016, 16(3), pp.511-525, ISSN: 0973-7006, indexed in **SCOPUS,** SNIP=0.619, **(**Q4)

4. Anita Pradhan, K. Raja Sekhar, **Gandharba Swain**, Digital image steganography based on seven way pixel value differencing, Indian Journal of Science and Technology, 9(37), 2016, pp.1-11, doi: 10.17485/ijst/2016/v9i37/88557, p-ISSN:0974-6846, e-ISSN: 0974-5645, indexed in **SCOPUS, Zoological Record (WOS),** SNIP=0.582, **(**Q4)

5. Anita Pradhan, K. Raja Sekhar, **Gandharba Swain**, Digital image steganography combining LSB substitution with five way PVD in 2×3 pixel blocks, International Journal of Pharmacy & Technology, 8(4), pp.22051-22061, 2016, ISSN:0975-766X, indexed in **SCOPUS,** SNIP=0.277, **(**Q4)

6. S. Jagadeesh, Riaz Shaik, **Gandharba Swain**, K. Rahul, User Authentication in Internet of Things: A Survey, International Journal of Pharmacy & Technology, 8(4), pp.22036-22050, 2016, ISSN:0975-766X, indexed in **SCOPUS,** SNIP=0.277, **(**Q4)

7. A. K. Sahu, **Gandharba Swain**, Information hiding using group of bits substitution, International Journal on Communications Antenna and Propagation, **Praise Worthy Prize**, 7(2), pp.162-167, 2017, p-ISSN: 2039-5086, e-ISSN: 2039-5094, indexed in **SCOPUS,** SNIP=0.537, **(**Q2)

8. M. Naga Vamsi Krishna, N. Sai Harsha, K. V. D. Kiran, **Gandharba Swain**, Optimization of energy aware path routing protocol in wireless sensor networks, International Journal of Electrical and Computer Engineering, **IAES**, 7(3), 2017, pp. 1268~1277, ISSN: 2088-8708, DOI: 10.11591/ijece.v7i3.pp1268-1277, indexed in **SCOPUS,** SNIP=0.688, **(**Q2)

9. Hingoliwala Hyder Ali, **Gandharba Swain**, Improving QOS parameters in wireless sensor network, ARPN Journal of Engineering and Applied Sciences, 13(8), pp.2873-2880, April, 2018, ISSN 1819-6608, Indexed in **SCOPUS,** SNIP=0.374, **(**Q3)

10. N. Koteswara Rao, **Gandharba Swain**, A systematic study of security challenges and infrastructures for internet of things, International Journal of Engineering & Technology, Sept 2018, 7 (4.36), pp.700-706, ISSN:2227-524X, indexed in **SCOPUS**, DOI: 10.14419/ijet.v7i4.36.24226, SNIP=0.47, **(**Q4)

11. Aditya Kumar Sahu, **Gandharba Swain,** Dual stego-imaging based reversible data hiding using improved LSB matching, International Journal of Intelligent Engineering and Systems, **INASS,** 2019, 12(5), pp.63-73, doi: 10.22266/ijies2019.1031.07, Indexed in **SCOPUS,** SNIP=0.488, issn:2185-3118, **(**Q3)

12. H. Vamshi Krishna, **Gandharba Swain**, Identification and avoidance of malicious nodes by using certificate revocation method, International Journal of Engineering & Technology (UAE), 7 (4.7), pp.152-156, Sept 2018, doi:10.14419/ijet.v7i4.7.20533, ISSN: 2227-524X indexed in **Scopus,** SNIP=0.47, **(**Q4)

13. Smita Chaudhari, **Gandharba Swain**, Pragnyaban Mishra, Secure and verifiable multi-party computation using indistinguishability obfuscation, International Journal of Intelligent Engineering and Systems, **INASS** 2020, 13(5), indexed in **SCOPUS,** SNIP=0.488, issn: 2185-3118, **(**Q3)

14. Snehalata K. Funde, **Gandharba Swain,** Security aware information classification in health care big data, International Journal of Electrical and Computer Engineering, **IAES**, 11(5), pp.4439-4448, 2021, indexed in **SCOPUS,** DOI: http://doi.org/10.11591/ijece.v11i5.pp%25p, SNIP=0.688, P-ISSN: 2088-8708, E-ISSN:2722-2578, **(**Q2)

15. Naween Kumar, **Gandharba Swain**, S. Routray, On-demand charging planning for WRSNs based on weighted heuristic method, International Journal of Information Technology, **Springer**, 14(2), pp.667-674, 2022, indexed in **SCOPUS,** SNIP:0.947, https://doi.org/10.1007/s41870-021-00837-1, E ISSN: 2511-2112, Print ISSN: 2511-2104, **(**Q4)

16. Hingoliwala Hyder Ali, **Gandharba Swain**, Energy efficiency cluster based approach for load balancing in WSN, ARPNJournal of Engineering and Applied Sciences, 17(8), pp.2873-2880, 2022, ISSN 1819-6608, Indexed in **SCOPUS,** SNIP=0.374, **(**Q3)

17. Hingoliwala Hyder Ali, **Gandharba Swain**, Path planning and secure routing in wireless sensor networks for multi-constrained quality of service, ARPN Journal of Engineering and Applied Sciences, 18(3), pp.183-190, March 2023, ISSN 1819-6608, Indexed in **SCOPUS,** SNIP=0.374, **(**Q3)

GOOGLE SCHOLAR INDEXED JOURNAL ARTICLES = 11

1. **Gandharba Swain**, D. Ravi Kumar, Anita Pradhan, Saroj Kumar Lenka, A technique for secure communication using message dependent steganography, International Journal of Computer and Communication Technology, Vol.2, Issue 2, 3, 4; 2010, pp.177-181, ISSN: 2231-0371, Indexed in **google scholar**

2. **Gandharba Swain**, Saroj Kumar Lenka, Application of a large key cipher in image steganography by exploring the darkest and brightest pixels, International Journal of Computer Science and Communication, Vol. 3, No.1, pp.49-53, **2012**. ISSN: 0973-7391, Indexed in **google scholar**

3. **Gandharba Swain**, Saroj Kumar Lenka, A quick review on network security and steganography, International Journal of Electronics and Computer Science Engineering, Vol.1, No.2, pp. 426-435, **2012**,

ISSN- 2277-1956, Indexed in **google scholar**

4. Anita Pradhan, D.S. Sharma, **Gandharba Swain**, Variable rate steganography in digital images using two, three and four neighbor pixels, Indian Journal of Computer Science and Engineering, Vol.3. No.3, pp.457-463, 2012. e-ISSN:0976-5166, p-ISSN:22313850, indexed in **google scholar**

5. **Gandharba Swain**, Saroj Kumar Lenka, A novel approach to RGB based image steganography technique, International Arab Journal of e-Technology, Vol.12, No.4, pp. 181-186, **2012**, P-ISSN- 1997- 6364, Indexed in **google scholar**, **dblp**

6. **Gandharba Swain**, Saroj Kumar Lenka, Steganography using two sided, three sided and four sided side match methods, CSI Transactions on ICT, **Springer**, Vol.1, No.2, pp.127-133, **2013**, doi: 10.1007/s40012-013-0015-3, p-ISSN: 2277-9078, e-ISSN: 2277-9086, indexed in **Google scholar**

7. **Gandharba Swain**, Saroj Kumar Lenka, Classification of image steganography techniques in spatial domain: a study, International Journal of Computer Science & Engineering Technology, Vol.5, No.3, pp.219-232, **2014**. ISSN: 2229-3345, Indexed in **google scholar**

8. Y. Nikitha, K. Venkatesh, **Gandharba Swain**, A pre-emptive multiple queue based congestion control algorithm for WSN, International Journal of Computer Engineering and Technology, 8(2), pp.49-54, 2017, p-ISSN: 0976–6367**,** e-ISSN**:** 0976–6375, indexed in **google scholar**

9. Tejaswi Makkena, Anudeep Kothapalli, **Gandharba Swain**, Improving quality of service in wireless sensor networks, International Journal of Pure and Applied Mathematics, 116(5-7), pp. 147-152, 2017, p-ISSN:1311-8080, e-ISSN 1314-3395, Indexed in **google scholar,** IF: **0.234**

10. P.M.V.K. Sandeep, V.B.S. Mukesh, **Gandharba Swain**, A secure intrusion detection system for multipath TCP, International Journal of Pure and Applied Mathematics, 116(5-7), pp.165-169, 2017, p-ISSN:1311-8080, e-ISSN:1314-3395, Indexed in **google scholar,** IF: **0.234**

11. Kanneganti Jahnavi, **Gandharba Swain**, The blockchain technology and attacks on it, Turkish Journal of Computer and Mathematics Education, 12(13), pp.571-581, 2021, indexed in **google scholar**, EISSN: 1309-4653

SCOPUS INDEXED INTERNATIONAL CONFERENCE ARTICLES = 18

1. **Gandharba Swain**, Saroj Kumar Lenka, A hybrid approach to steganography- embedding at darkest and brightest Pixels, Proceedings of International Conference on Communication and Computational Intelligence, INCOCCI-2010, 27-29 Dec **2010**, KEC, Erode, Tamilnadu, pp.529-534. ISBN No: 978-81- 8371-369-6, Published i**n IEEE Xplore,** indexed in **SCOPUS,**

2. **Gandharba Swain**, Saroj Kumar Lenka, Steganography using the twelve square substitution cipher and an index variable, Proceedings of International Conference on Electronics Computer Technology, ICECT-2011, 7-9 April **2011**.Kanyakumari, Vol.3, pp.84-88, doi: 10.1109/ICECTECH.2011.5941806, ISBN No: 978-1-4244-8679-37, Published in **IEEE Xplore**, indexed in **SCOPUS**

3. **Gandharba Swain**, Saroj Kumar Lenka, A better RGB channel based image steganography technique, International Conference on Computing and Communication Systems, Obcom 2011: Global Trends in

Information Systems and Software Applications, CCIS, Vol.270, pp.470-478, **2011**. doi: 10.1007/978- 3-642-29216-3_51, indexed in **SCOPUS**, p-ISSN:1865-0929, IF: **0.482**

4. **Gandharba Swain**, Saroj Kumar Lenka, LSB array based image steganography technique by exploring the four least significant bits, International Conference on Computing and Communication Systems, Obcom 2011: Global Trends in Information Systems and Software Applications, CCIS, Vol.270, pp.479-488, 2011. doi: 10.1007/978-3-642-29216-3_52, indexed in **dblp, SCOPUS**, p-ISSN:1865-0929, IF:**0.482**

5. **Gandharba Swain**, Saroj Kumar Lenka, A robust image steganography technique using dynamic embedding with two least significant bits, International Conference on Control, Robotics and Cybernetics (ICCRC 2011), Published in a Book "MEMS, NANO and Smart Systems", Advanced Materials Research, Vols. 403-408 (2012) pp.835-841, ISSN No: 1022-6680, indexed in **SCOPUS, IF: 0.133**

6. **Gandharba Swain**, Saroj Kumar Lenka, A dynamic approach to image steganography using the three least significant bits and extended Hill cipher, International Conference on Control, Robotics and Cybernetics (ICCRC 2011), Published in a Book "MEMS, NANO and Smart Systems", Advanced Materials Research Vols. 403-408 (**2012**) pp.842-849. ISSN No: 1022-6680, indexed in **SCOPUS**, **IF: 0.133**

7. **Gandharba Swain**, Saroj Kumar Lenka, Pixel value differencing steganography using c orrelation of target pixel with neighboring pixels, 2015 IEEE International Conference on Electrical, Computer and Communication Technologies, SVS College of Engineering, Coimbatore, India, pp.599-604. ISBN No: 978-1-4799-6085-9, doi**:** 10.1109/ICECCT.2015.7226029, Included in **IEEE Xplore**, indexed in **SCOPUS**

8. **Gandharba Swain**, Digital image steganography using variable length group of bits substitution, International Conference on Computational Modeling and Security (CMS 2016), Procedia Computer Science, **(Elsevier**), 85 (2016), pp.31–38, ISSN: 1877-0509, indexed in **SCOPUS,** IF: **1.492**

9. **Gandharba Swain**, A steganographic method combining LSB substitution and PVD in a block, International Conference on Computational Modeling and Security (CMS 2016), Procedia Computer Science, **(Elsevier**), 85 (2016), pp.39–44, ISSN:1877-0509, indexed in **SCOPUS,** IF: **1.492**

10. Anita Pradhan, Aditya Kumar Sahu, **Gandharba Swain**, K. Raja Sekhar, Performance evaluation parameters of image steganography techniques, IEEE International Conference on Research Advances in Integrated Navigation Systems (RAINS - 2016), R. L. Jalappa Institute of Technology, India, ISBN:978-1-5090-1111-7 doi: 10.1109/RAINS.2016.7764399, Included in **IEEE Xplore**, indexed in **SCOPUS**

11. Bishwas Mandal, Anita Pradhan, **Gandharba Swain**, Adaptive LSB substitution steganography based on PVD, Proceedings of the Third International Conference on Trends in Electronics and Informatics (ICOEI 2019), pp.648-653, doi: 10.1109/ICOEI.2019.8862579, indexed in **SCOPUS**

12. Priyanka Kondeti, Lakshmi Pranathi Yerramreddy, Anita Pradhan, **Gandharba Swain**, Fake account detection using machine learning algorithms, In: Evolutionary Computing and Mobile Sustainable Networks. Lecture Notes on Data Engineering and Communications Technologies, vol 53. pp.791 - 802, 2021. https://doi.org/10.1007/978-981-15-5258-8_73, indexed in **SCOPUS.**

13. Kailash Nadh Gottipati, Nikhila Peddisetty, Susmitha Pothireddy, Gitanjani Botta, Pachipala Yellamma, **Gandharba Swain**, A Study on Data Security and Privacy Issues in Cloud Computing, 2023 Third

International Conference on Artificial Intelligence and Smart Energy (ICAIS), pp. 451-458, 2023, 10.1109/ICAIS56108.2023.10073721

14. Leela Krishna Kumar Pallapothu, Veda Manohara Sunanda Vulavalapudi, Poorna Chand Evuru, Pramoda Medisetty, Kolla Bhanu Prakash, **Gandharba Swain**, Semantic Analysis of Auto-generated Sentences using Quantum Natural Language Processing, 2023 International Conference on Intelligent and Innovative Technologies in Computing, Electrical and Electronics (IITCEE), pp. 623-628, 2023, 10.1109/IITCEE57236.2023.10091087

15. Shyam Sundar Ramaswami, **Gandharba Swain**, Detecting Macro less and Anti-evasive Malware in Malspam Word Attachments Using Anergy Scoring Methodology, 2023 International Conference on Advances in Intelligent Computing and Applications (AICAPS), pp.1-8, 2023, 10.1109/AICAPS57044.2023.10074267

16. Muhammad Azeez Ur Rahaman, Muhammad Safoora Begum, Jaddu Naga Sai Krishna, Arava Teja Mani Raju, Ravi Kumar Tata, **Gandharba Swain**, Digital Watermarking Analysis Using Data Security, 2023 9th International Conference on Advanced Computing and Communication Systems (ICACCS 2023), 2023. Pp. 486 – 489, 10.1109/ICACCS57279.2023.10113111

17. S.N.V.J. Devi Kosuru, Anita Pradhan, Anantha Rao Gottimukkala, **Gandharba Swain**, Efficiency Evaluation Parameters of Digital Image Watermarking Techniques, 2023 9th International Conference on Advanced Computing and Communication Systems (ICACCS 2023), 2023.pp. 1077 – 1082, 10.1109/ICACCS57279.2023.10113036

18. Anantha Rao Gottimukkala, Anita Pradhan, S.N.V.J. Devi Kosuru, **Gandharba Swain**, Image Tamper Detection and Correction Based on Mean Pixel Value and Logistic Map, 2023 9th International Conference on Advanced Computing and Communication Systems (ICACCS 2023), 2023. pp. 1071 – 1076, 10.1109/ICACCS57279.2023.10112748

SCOPUS INDEXED BOOK CHAPTERS = 2

1. Aditya Kumar Sahu, **Gandharba Swain,** An improved method for high hiding capacity based on LSB and PVD, Digital Media Steganography, Chapter 3, Edited by Mahmoud Hassaballah, 2020, ISBN No: 9780128194386, Academic press, Elsevier, indexed in **SCOPUS**

2. Anita Pradhan, K. Raja Sekhar, **Gandharba Swain**, Image Steganography using add-sub based QVD and side match, Digital Media Steganography, Chapter 5, Edited by Mahmoud Hassaballah, 2020, ISBN No: 9780128194386, Academic press, Elsevier. indexed in **SCOPUS**

BOOKS AUTHORED = 2

1. **Gandharba Swain,** Object Oriented Analysis and Design Through Unified Modeling Language, Laxmi Publications, New Delhi. First Edition, 2010. ISBN: 978-93-80386-54-6

2. **Gandharba Swain,** Advanced Digital Image Steganography Using LSB, PVD, and EMD: Emerging Research and Opportunities, IGI Global, USA. Published in 2019, ISBN10: 1522575162, ISBN13: 9781522575160, EISBN13: 9781522575177, DOI: 10.4018/978-1-5225-7516-0

PATENTS PUBLISHED

1. Patent Application No. 202041015034, Title of the invention: Method for effective customer engagement using multilayered feed forward neural network and fuzzy logic, **Publication Date**: 22-05-2020, Inventors: Pramoda Patro, Dr. Krishna Kumar, G. Suresh Kumar, **Dr Gandharba Swain**, Trilochan Rout, Soumya Ranjan Das, Manas Ranjan Chowdhury, and Dakshya Prasad Pati
2. Patent Application No. 202041029533, Title of the invention: Neural-Network based method for data partitioning and parameter learning using fuzzy term identification, **Publication Date:** 31-07-2020, Inventors: Pramoda Patro, Dr Krishna Kumar, Dr G. Suresh Kumar, **Dr Gandharba Swain**, Trilochan Rout, Manas Ranjan Choudhury, Dakshya Prasad Pati, Akshaya Kumar Dash, and Dr Aditya Kumar Sahu
3. Patent Application No. 202341005702 A, Title of the invention: System and method for image tamper detection and correction using Merkle tree and remainder value differencing, **Publication Date:** 03-02-2023, Inventors: S.N.V.J. Devi Kosuru, **Dr Gandharba Swain**, Dr Anita Pradhan, Dr Pramoda Patro

REVIEWED RESEARCH ARTICLES OF THE FOLLOWING JOURNALS

Srl #	Journal Name	Publisher
1	IEEE Transactions on Dependable and Secure Computing	IEEE
2	IEEE Transactions on Emerging Topics in Computational Intelligence	IEEE
3	IEEE Transactions on Services Computing	IEEE
4	IEEE Transactions on Artificial Intelligence	IEEE
5	IEEE Access	IEEE
6	ACM Transactions on Internet Technology	ACM
7	ACM Transactions on Multimedia Computing, Communications, and Applications	ACM
8	IET Image Processing	IET
9	CAAI transactions on intelligence technology	IET
10	Journal of Information Security and Applications	Elsevier
11	Computers and Electrical Engineering	Elsevier
12	Displays	Elsevier
13	Alexandria Engineering Journal	Elsevier
14	Information Processing Letters	Elsevier
15	AEU-International Journal of Electronics and Communications	Elsevier
16	Microprocessors and Microsystems	Elsevier
17	Engineering Applications of Artificial Intelligence	Elsevier
18	Signal Processing: Image Communication	Elsevier
19	Results in Optics	Elsevier
20	Engineering Applications of Artificial Intelligence	Elsevier
21	Artificial Intelligence Review	Springer
22	3D Research	Springer
23	Arabian Journal for Science and Engineering	Springer
24	Multidimensional Systems and Signal Processing	Springer
25	Journal of The Institution of Engineers (India): Series B	Springer
26	Journal of Visual Communication and Image Representation	Springer
27	Wireless Personal Communications	Springer
28	Augmented Human Research	Springer

29	Security and Communication Networks	Hindawi
30	Journal of Healthcare Engineering	Hindawi
31	PLOS ONE	Public Library of Science
32	Journal of Experimental and Theoretical Artificial Intelligence	Taylor and Francis
33	Information Security Journal: A Global Perspective	Taylor and Francis
34	Cryptologia	Taylor and Francis
35	IETE Journal of Research	Taylor and Francis
36	The imaging Science Journal	Taylor and Francis
37	International Journal of Electronic Security and Digital Forensics	Inderscience
38	Journal of Intelligent Systems	DE GRUYTER
39	Information Technology and Control	Kaunas Univ of Tech
40	PeerJ Computer Science	An open access publisher
41	Applied Computing and Informatics	Emerald Publishing
42	Indonesian Journal of Electrical Engineering and Informatics	IAES
43	British Journal of Mathematics & Computer Science	Science Domain International
44	Journal of Computer Science & Computational Mathematics	S & K, Malaysia

EDITORIAL BOARD MEMBER OF JOURNALS

Journal Name	Indexed In	Publisher	Role
PLOS ONE	SCOPUS, SCIE	Public Library of Science	Editor from 2018 to 2021
Advances in Multimedia	SCOPUS, ESCI	Hindawi	Lead Guest Editor in 2017

WORKSHOPS, FDPS AND GUEST LECTURES ORGANIZED

- Organized two-week faculty development program on Big Data Analytics from 26-04-2016 to 06-05-2016 held at KL University, Vaddeswaram, sponsored by DST, Govt. of India.
- Organized a 1-day Workshop on "Bit Coin & Block Chain Technology" on 24-10-2016 in collaboration with eSF Labs, Vijayawada.
- Organized a 5-day FDP on "Cyber Security" during: 23-10-2017 to 27-10-2017 in collaboration with NASSCOM and CyberEye Research Labs at KL University, Vijayawada.

WORKSHOPS/TRAINING PROGRAMS ATTENDED

- Attended a five-day training program on "Methods of Improving Teaching Techniques" at GMRIT, Rajam during December 10-15, 2005.
- Attended a four-day national workshop on "security in distributed & parallel environment" at Erode Senguthar Engineering College, Erode during January 18-21, 2006.
- Attended a two-day national workshop on "VLSI Embedded Systems" at GMRIT, Rajam during Feb 17-18, 2006.
- Attended a two-day faculty development program on "Industry Institute interaction" at Accenture s/w Company, Hyderabad during March 27-28, 2006.
- Attended a two-day national workshop on "Information Security" at GMRIT, Rajam during February 02-03, 2007.
- Attended a two-day national workshop on "Machine learning" at MVGR Engineering College, Vizianagaram during February 16-17, 2007.
- Attended a two-day workshop on "Open Source and IBM Community Edition" conducted by IBM at GMRIT during June 20-21, 2007.
- Attended a two-day faculty development program "Enabling the Guru", at L&T InfoTech, Bangalore during

February 05-06, 2008.

- Attended a two-day workshop on "High Impact Teaching Skills" during December 08-09, 2008 and awarded Dale Carnegie Certificate.
- Participated in Mission10X workshop conducted by WIPRO at GMR Institute of Technology during December 8-12, 2008.
- Attended a two-day training course on "INTERNAL AUDITING ON ISO 9001:2008" held during August 21-22, 2009 at GMR Institute of Technology, Rajam by Real Time Quality Management Services, Visakhapatnam.
- Attended a four-day course work on Object Oriented Analysis and Design using UML with Essentials of Rational Software Architect, May 28-31, 2011, conducted by IBM at GMRIT, Rajam.
- Attended a one-day workshop for training resource persons on outcome-based accreditation Phase at JNTU, Kakinada on 29th April 2013.
- Attended a two-day national workshop on Big Data & Hadoop conducted by CSE & IT departments of GMR Institute of Technology, Rajam, during 18-19, December, 2014.
- Attended a training program on LABView, modulation ToolKit, USRP for 7 days from 16-06-2016 to 23-06-2016 at OPTITHOUGHT, Chennai
- Attended a 1-day Workshop on "Bit Coin & Block Chain Technology" on 24-10-2016 conducted at KL University in collaboration with eSF labs, Vijayawada.
- Attended a 5-day FDP on "Cyber Security" during: 23-10-2017 to 27-10-2017 conducted at K L University in collaboration with NASSCOM and CyberEye Research Labs.
- Attended a 2-week Faculty Development Program on "Cyber Attacks & Security" organized by Indian Servers in association with NSF research group, KLEF from 03-06-2019 to 14-06-2019.
- Attended One day Orientation programme on "Be an Online Teacher: Practicing Virtual Pedagogies", on 16-07-2020
- Attended one day workshop on Ethereum and Application development on 03-10-2020 conducted by KLEF and Mr Rohith, from TCS, Hyderabad.
- Participated in international conference ISCDA-2020 from 04-10-2020 to 05-10-2020 organized by KLEF, Vaddeswaram, Guntur
- Participated in the event "Patent Ability Search Analysis Techniques" conducted by Koneru Lakshmaiah Intellectual Property Facilitation Center, CIIE on 23-02-2021.
- Participated in 1-week international FDP on "Blockchain: Applications, Use cases, and Opportunities" from 26-07-2021 to 30-07-2021 organized by NSS cell, Adikavi Nanaya University, Rajahmundry, AP, India
- Participated FDP program on "Hands on Cyber Security" during 15 dec 2021 to17 dec 2021 conducted by Star Computers at KLEF, Vijayawada.

MOOCs COURSES CERTIFIED

- ICSI: CNSS certified network security specialist on 15-05-2020
- Courseera: Cryptography on 17-06-2020
- Courseera: Introduction to HTML on 27-06-2020
- Courseera: Build Your Portfolio Website with HTML and CSS on 27-06-2020
- Courseera: Networks and Communications Security on 01-07-2020
- Courseera: Communication in the 21st Century Workplace on 12-08-2020
- Courseera: Coursera Master Class: The Art and Science of Teaching Online on 19-09-2020

ASSOCIATION WITH PROFESSIONAL SOCIETIES

- Member IEEE, Membership No. 98335281
- Life Member of Indian Society for Technical Education, Membership No. LM 50556

- Life Member of Computer Society of India, Membership No. 00173873
- Member of International Association of Comp. Sc. and Info. Tech (IACSIT), Member No. 80337307
- Member of International Association of Engineers (IAENG), Hong Kong, Member No. 114958

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Date of Birth: 11th October 1974, **Nationality**: Indian, **Religion:** Hindu,

Marital Status: Married, **Wife:** Anita, **Daughters:** Poonam and Pavani

REFEREES

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DECLARATION

I hereby declare that the information furnished above is written by me and true to the best of my knowledge.

Date: 04-06-2023
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(Dr Gandharba Swain)