

Faculty Profile



Dr. R. Augustian Isaac , M.E., Ph.D
Professor

HIGHLIGHTS:

- Number of Journal Publications: 64
- Scopus 17
- SCI 08
- H-Index: 04
- Patents Published: 02

PROFESSIONAL LINKS:

- Scopus ID: 57189763043
- Scopus Link: <https://www.scopus.com/authid/detail.uri?authorId=57189763043>
- Orcid ID : <https://orcid.org/0009-0004-6479-6885>
- Web of Science ResearcherIDJ : OZ-7957-2023 :
<https://www.webofscience.com/wos/author/record/JOZ-7957-2023>
- Google Scholar ID: https://scholar.google.com/citations?hl=en&user=fkpU-3IAAAAJ&view_op=list_works&authuser=2&sortby=pubdate
- Anna University Faculty ID: 268606
- AICTE Faculty ID: 4369857697
- LinkedIn: <https://www.linkedin.com/in/dr-augustian-isaac-91495a91>

PROFESSIONAL BACKGROUND:

- Teaching Experience till date: 24 Yrs
- Industrial Experience: Nil

AREA OF SPECIALIZATION:

- Cyber Security (Ethical Hacking, Digital Forensics and Digital Investigations)
- Artificial Intelligence & Machine Learning
- GenAI application development
- NLP, Language model
- Energy saving in WAN, WSN
- Green Computing & Quantum Intelligence

PATENTS PUBLISHED/GRANTED:

1. Multi-Layered Cybersecurity Framework Using Machine Learning Algorithms”, Application No.202441027153 A, Published on 12.04.2024. Patent Application Publication India

2. “The Effect of application of the children learning in science model (CLIS) on science Process skills” Application No.202442061955 published on 15.08.2024. Patent Application Publication India

Research Article Publication

1. Zero-Knowledge Cross-User De-Duplication for Big Data Storage on ClouD, Karthika, RN; Valliyammai, C; Sundaravadivel, P; Isaac, R Augustian, Year: 2024

2. A Very Compact and Highly Decoupled Four Element Antenna for n79 Band Application

- **Authors:** Vadivel, P Sundara; Isaac, R Augustian; Pandian, P Senthil; Kumar, D Rajesh
- **Publication:** International Journal of Microwave & Optical Technology
- **Volume:** 19.0, Issue 1
- **Year:** 2024

3. Advancements in Neural Network Architectures for Image Recognition in Computer Vision Systems

- **Authors:** Deepa, A; Nandhini, R; Kannammal, G Rajendra; Isaac, R Augustian; Abualigah, Laith; Varalakshmi, S
- **Publication:** Journal of Electrical Systems
- **Volume:** 20.0, Issue 7s, Pages 2693-2703
- **Year:** 2024

4. Analyzing IoT Smart System Application and Environment by Using Simulated Annealing Techniques

- **Authors:** Pandian, P Senthil; Sundaravadivel, P; Isaac, R Augustian; Hemavathy, P; Vinothkumar, ES; Ramal, P Janaki
- **Publication:** Journal of Theoretical and Applied Information Technology
- **Volume:** 102.0, Issue 8
- **Year:** 2024

5. CNN-based Smart Activity Recognition for Elderly and Physically Disabled

- **Authors:** Hemavathy, P; Alhaji, Haitham; Yuvaraj, D; Sundaravadivel, P; Alnuaimi, Saif Saad; Isaac, R Augustian
- **Publication:** Journal of Electrical Systems
- **Volume:** 20.0, Issue 3s, Pages 267-275
- **Year:** 2024

6. Design and Development of OCR Integrated Automated Writing Machine

- **Authors:** Debnath, Aritri; Vyjayanthi, Matam; Chaitra, N; Ghosh, Raksha
- **Publication:** 2020 Third International Conference on Smart Systems and Inventive Technology (ICSSIT)
- **Pages:** 1207-1212
- **Year:** 2020
- **Publisher:** IEEE

7. Design and Development of an Automated Writing Machine

- **Authors:** Satheeshkumar, P; Challa, Ganesh; Ramesh, M; Mahesh, M; Reddy, N Sreeramula

8. Dynamic Power Management Through Clustering in Wireless Sensor Network

- **Authors:** Isaac, R Augustian; Lakshmi, M
- **Publication:** Journal of Engineering and Applied Sciences
- **Volume:** 14.0, Issue 2, Pages 583-588
- **Year:** 2019

9. Dynamic Power Management an Integrated Approach for Lifetime Enhancement of Wireless Sensor Network

- **Authors:** Isaac, R Augustian; Lakshmi, M
- **Publication:** Journal of Network Communications and Emerging Technologies (JNCET)
- **Volume:** 7.0, Issue 10
- **Year:** 2017

10. Enhanced Novelty Approaches for Resource Allocation Model for Multi-Cloud Environment in Vehicular Ad-Hoc Networks

- **Authors:** VS, Nici Marx; Sundaravadivel, P; Elangovan, D
- **Year:** 2024

11. Exploring The Factors Influencing The Effectiveness Of Digital Marketing In Changing Environment; A Theoretical And Empirical Investigation

- **Authors:** TP, Krishna Kumar; Malhotra, Priyanka; Isaac, R Augustian; Balasubramanian, D
- **Publication:** Educational Administration: Theory and Practice
- **Volume:** 30.0, Issue 4, Pages 7488-7493
- **Year:** 2024

12. Homework Writing Machine

- **Authors:** Isaac, R Augustian; Singh, Amit Kumar; Tamta, Prateekshit; Singh, Gaurav
- **Publication:** IJARIIE

- **Volume:** 4.0, Issue 5
- **Year:** 2018

13. Intelligent Systems and Applications in Engineering

- **Authors:** Alnuaimi, Saif Saad; Rasheed, Bilal Hikmat; Yuvaraj, D; Sundaravadivel, P; Isaac, R Augustian

14. Modified Dynamic Power Management an Integrated Approach for Lifetime Enhancement of Wireless Sensor Network (M-DPMM)

- **Authors:** Isaac, R Augustian; Lakshmi, M

15. Optimizing Credit Card Fraud Detection with Random Forests and SMOTE

- **Authors:** Sundaravadivel, P; Elangovan, D; Raj, KD Krishna; Rahul, LRVV Lokesh; Raja, R
- **Year:** 2024

16. Secured E-Banking System Using Artificial Intelligence

- **Authors:** Isaac, R Augustian; Chaturvedi, Prakhar; Gareja, Pradip; Grover, Rohan
- **Publication:** Int J Emerg Technol Eng Res (IJETER)
- **Volume:** 6.0
- **Year:** 2018

17. Sign Language Interpreter

- **Authors:** Isaac, Mr R Augustian; Gayathri, S Sri
- **Year:** 2018

18. Spoofing Detection for Fingerprint, Palm-Vein, and Facial Recognition Using Deep Representation

- **Authors:** Isaac, R Augustian; Kathera, Aditya; Venkatachalam, KH; Raj, Moturu Tarun; Gokulnath, G

19. Studies on Dynamic Power Management and Routing Techniques in Wireless Sensor Network

- **Authors:** Isaac, R Augustian; Lakshmi, M

20. Voice Technology & Speech Recognition in ELT

- **Authors:** Gandhi, S Mercy Gnana

21. Web Image Search Reranking Using CBIR

- **Authors:** Tech, V Vinitha M; Jagadeesan, J

2. Patents

1. **Generative Adversarial Network (GAN)-Based Synthetic Data Generation for Privacy Preserving Machine Learning**
 - **Status:** Published
 - **Application Date:** 2 August 2024
 - **Co-Investigators:** Saveetha Engineering College, E. Poovannan, P. Sankar, R. Augustian Isaac, C. Rajarajachozhan, et al.
2. **The Effect of Application of the Children Learning in Science Model (CLIS) on Science Process Skills**
 - **Status:** Applied
 - **Application Date:** 14 August 2024
 - **Co-investigators:** Dr. R. Augustian Isaac, Dr. T.V.S. Padmaja, Dr. H. Selvi, Dr. Pratima Mishra, et al.

3. Workshops Conducted

1. **Bootstrap Mastery: Enhancing Frontend Skills for Full Stack Engineers**
 - **Event Date:** 28 March 2024
 - **Resource Person:** Dr. Sathish Kumar M, Assistant Professor, Hindustan Institute of Technology and Science, Chennai
2. **Ethereum Odyssey**
 - **Event Date:** 28 March 2024
 - **Resource Persons:** Venkadesh E, Nitishwar S, Sathish R (Final Year IT Students, SEC)
3. **Unlocking Potential: Exploring Survey Sparrow Career Roles**
 - **Event Date:** 28 March 2024
 - **Resource Persons:** Gokul Nath A, Shanu S
4. **Career Guidance and Higher Education for Success**
 - **Event Date:** 31 August 2024
 - **Resource Persons:** Mr. Jai Sreedhar (Business Head—Manya The Princeton Review), Mr. Boopathy M (Certified Quants Trainer), Mr. Kannan Selvaraj (Certified Verbal Trainer)

4. Courses Developed

4.1 Programming in C (19CS302)

- **Nature:** Lab/Programming
- **Developed for:** Unit 1, Unit 4
- **Instructional Materials Used:** PPT, YouTube Videos, Group Discussions
- **Assessment Activities:** Quizzes, Assignments, Coding Tests, GATE Questions
- **Outcome:** Develop simple applications in C using basic constructs and structures

4.2 Advanced C Programming (19AI305)

- **Nature:** Theory cum Lab
- **Developed for:** Unit 4
- **Instructional Materials Used:** PPT, YouTube Videos, Peer Learning
- **Assessment Activities:** Video Presentations, Coding Tests
- **Outcome:** To write a simple C program

4.3 Fundamentals of C Programming (19AI304)

- **Nature:** Theory cum Lab
- **Developed for:** Unit 1, Unit 5
- **Instructional Materials Used:** PPT, YouTube Videos, Peer Learning
- **Assessment Activities:** Quizzes, Assignments, Video Presentations, Coding Tests
- **Outcome:** To write basic and advanced structure programs in C

5. Conferences Attended

1. **Fifth International Conference on Sustainable Communication Networks and Applications IEEE**
 - **Organization:** Bharath Niketan Engineering College, India
 - **Date:** 11 December 2024
 - **Paper Title:** A Multi-Source Approach to Film Recommendations Using Social Media, Search Data, and Streaming History
2. **ChatGPT & AI**
 - **Event Date:** 4 July 2024
 - **Organized By:** Skill Nation
 - **Description:** Exploration of ChatGPT's influence on Microsoft Office products, AI tools like Merlin, Google Gemini, and tools for debugging code and enhancing productivity.

Innovations in Teaching and Learning Practices (TLP)

1. **Programming in C:** Developed content for Units 1 and 4, including quizzes, assignments, and coding tests. Designed to help students develop simple applications in C.
2. **Advanced C Programming:** Created resources and assessments for Unit 4, emphasizing practical programming applications.
3. **Fundamentals of C Programming:** Designed teaching materials and activities for Units 1 and 5 to aid in writing basic and advanced C programs.