

## Dr. UMA MAHESWARI S

Assistant Professor (Selection Grade)

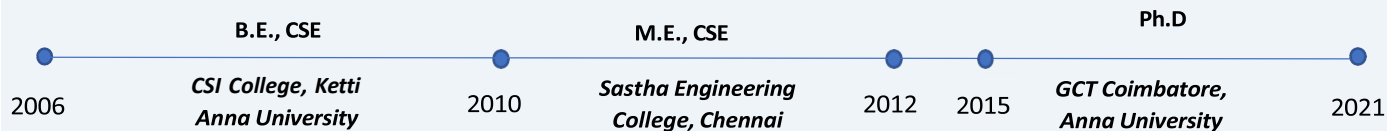
Division of Data Science and Cyber Securitys  
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Coimbatore-641 114



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### Education



### Summary

A passionate academic professional with strong technical, communication, and team management skills currently working as an Assistant Professor [Selection grade] in the Computer Science and Engineering department at Karunya Institute of Technology and Sciences, Coimbatore. Well-versed in programming languages such as, C, C++, Python, Java and MySQL. Combines a focus on relevant experience in working in cloud and neural network projects (Git and CNN based real time projects). Strong background in agile project management and customer relations. Supportive and enthusiastic team player dedicated to streamlining processes and efficiently resolving project issues with a passion for scholarly work, presenting and publishing at conferences, and maintaining thought leadership in peer-reviewed journals.

### EDUCATION

- Awarded Ph.D in Information and Communication Engineering from Government College of Technology under Anna University Chennai in the year 2021.
- M.E in Computer Science and Engineering under Anna University in the year 2012.
- B.Tech in Information Technology under Anna University in the year 2010.

### ACADEMIC EXPERIENCE - 12 YRS

- Asst. Professor (Selection Grade) at Karunya Institute of Technology and Sciences, Coimbatore (July2023 – till date)
- Asst. Professor II at Kumaraguru College of Technology (September,2012 -June,2023)

### INDUSTRIAL/ FIELD EXPERIENCE : ( Jan 2022- Jan 2023) - 1 Year

#### Senior Research Fellow at Multicoreware Pvt Ltd, Chennai (January 2022- January,2023)

#### Project Details: Untether -AI accelerated Chip.

These chips are specifically designed to accelerate the computations involved in CNNs. The goal of the project is to develop hardware that can perform image analysis and recognition tasks in real-time or near real-time, which is critical in applications such as autonomous vehicles, surveillance systems, and medical imaging. By accelerating the computations involved in CNNs, these specialized chips can significantly improve the performance and efficiency of image analysis systems, making them more effective and cost-efficient.

### SKILLSET:

Technical Skills	Soft Skills
<ul style="list-style-type: none"><li>• Agile Software Development.</li><li>• Python Programming</li><li>• DBMS- Mysql, Oracle</li><li>• Big Data Technologies</li></ul>	<ul style="list-style-type: none"><li>• C and C++ Programming</li><li>• Java Programming</li><li>• Cloud Computing</li><li>• Public Speaking</li><li>• Leading Team</li><li>• Mentoring</li><li>• Team Management</li><li>• People Management</li><li>• Quick &amp; Self Learning</li></ul>

## ACHIEVEMENTS

- Nominated the CPOC for AWS Academy at Karunya University.  
Undergone a faculty Internship at Multicoreware Pvt. Limited, Chennai as Sr. Research Fellow for a period of one year.
- Awarded excellence award for an completed consultancy worklet on “Infra Services, Cloud Security for Fraudulent detection on Authentication server “, for Samsung PRISM .
- Established an Open-Source Industry lab with Srishti Application PVT Limited.
- Institution Responsibilities - Tech Champion 2020, Archive Management.
- Developed a Project “Budget Aggregator” for Accounts Department of Kumaraguru Institution in 2020.
- Developed E-Archiving System for automated data collection and under proposal for institute level scale-up.
- Invited Foss Infotech, Open-Source ERP based Company for providing placements to IT /CSE students.
- 7 real time projects with 2 internships and consultant training for Altran Infotech Industry was accomplished being a Coordinator of KCTIRI from 2017-2019.
- Conducted an online training on C++ for industry employees from Multicoreware, Pvt Limited Chennai.

## NOTABLE PUBLICATIONS

- Uma Maheswari S, Anna Alphy, Ganeshkumar Deivasikamani, U. Prakash, Finney Daniel Shadrach, M. Ashok Kumar, S. Manoj, (2024), “Sustainable groundwater development using semi-supervised learning and community-led total forestry and pasture approach”, Groundwater for Sustainable Development, Elsevier-Science Direct, Volume 25, 101093, ISSN 2352-801X, <https://doi.org/10.1016/j.gsd.2024.101093>. **(ESCI & Scopus Indexed)** (In Press).
- Uma Maheswari S & Vasanthanayaki, C. (2023). Medicinal Image Watermarking System for Recovering Embedded Information from Therapeutic Restorative Images. In Sustainable Digital Technologies for Smart Cities (pp. 175-186). In CRC Press, ISBN:9781003307716. <https://doi.org/10.1201/9781003307716>.
- A. Adarsh, E. Saran Karthik, S. Aswath, A. Sampath, S. A. Pasupathy and S. Uma Maheswari, (2022), "Developing a secure, production-grade CMS for a Fitness centric Startup," 2022 International Conference on Computer Communication and Informatics (ICCCI), Coimbatore, India, 2022, pp. 1-5, doi: 10.1109/ICCCI54379.2022.9740749. (Scopus Indexed).
- Uma Maheswari S, Vikraman, R., & Parivel, K. (2021, October). E-Archiving and Approval System. In 2021 International Conference on Advancements in Electrical, Electronics, Communication, Computing and Automation (ICAECA) (pp. 1-5). IEEE. (Scopus Indexed)
- Uma Maheswari S, Dr.C.Vasanthanayaki, (2019), “Secure Medical Health Care Content Protection System (SMCPS) and Watermark Detection for Multi Cloud Computing Environment”, Journal of Multimedia Tools and Applications, 2019. (SCI & WOS Indexed)
- Uma Maheswari S, Dr.C.Vasanthanayaki, (2019), Enhanced Techniques To Secure Medical Image And Data Transit”, Springer- Lecture Notes in Computational Vision and Biomechanics 30, [https://doi.org/10.1007/978-3-030-00665-5\\_40](https://doi.org/10.1007/978-3-030-00665-5_40). (Scopus Indexed)
- Uma Maheswari S, Vasanthanayaki, C. (2018), ” Secure and Enhanced Information Encoding In Matrix Barcode”, Journal of Advanced Research in Dynamical and Control Systems, (06), pp: 1926-1936, 2017. (Scopus Indexed)
- Uma Maheswari S, Vasanthanayaki, C., (2018), ” Performance Analysis of Compressing Sensing Framework on Interactive Media Content” International Journal of Pure and Applied Mathematics, Volume 116 No. 11, 241-250, 2017. (Scopus Indexed)
- Uma Maheswari, S, Francis Jency, X, Sridhar N K, KP. Balakumaran, M. Mukeshraj, .Raviprasad, (2018), “Effective Connecting Methods For Information Dissemination”, International Journal of Pure and Applied Mathematics Volume 120 No. 6 2018, 11535-11541, July 31, 2018. (Scopus Indexed).

## RESEARCH EXPERIENCE

- Information Security
- Cloud Computing
- Data Science

## Project Experience

- Internship : AI Compute Engine  
Description : A scalable AI inference accelerator architecture built for high throughput, low latency and energy efficiency.
- Ph.D : Secure Medical Health Care Content Protection System for Multi Cloud Computing Environment.  
Description : Enhanced security storage for health care records using CS framework.
- PG : High Capacity Color Barcodes Using Orientation Modulation in Elliptical Dot Arrays .  
Description : Increased information storage and data recovery.

## DETAILS OF FUNDED PROJECTS/CONSULTANCY

Sl. No.	Funding Agency	Project Title	Duration & status	Amount	Remarks
1.	Samsung Prism	Infra Services, Cloud Security for Fraudulent detection on Authentication server	1 year	Good Will	Excellence Award
2.	KCT SEED	Budget Aggregator	6 months	Good Will	Deployed in Finance department, KCT
3.	Samsung Prism	Meme detection benchmarking on Indian data using ocr text, audio	1 year	1 year	In Progress
4.	KCT SEED	E-Archiving System for automated data collection.	3 Years	Good Will	Submitted.


## PROFESSIONAL TRAINING/DIPLOMAS/CERTIFICATIONS

- Completed the AWS certification in Cloud Fundamentals.
- Oracle Database 12c: SQL Fundamentals – Oracle
- Advanced Diploma in software Engineering - 3 Edge Technologies
- British English Course - Cambridge University Press & Assessment English.


## Languages Known:

- **English** (Read, Write, Speak), **Tamil** (Read, Write, Speak), **Kannada** (Speak).

## More Details:

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