



**DR. K. MAHESH**

Professor

### Contact

Address : Department of Computer Applications  
Alagappa University  
Karaikudi – 630003  
Tamil Nadu, INDIA

Employee Number : 51402

Contact Phone (Office) : (+91) 4565 226502

Contact Phone (Mobile) : 9443190942

Contact e-mail(s) : mahesh.alagappa@gmail.com  
maheshk@alagappauniversity.ac.in

### Academic Qualifications

| Degree  | Institution                | Year | Branch                | Class   |
|---------|----------------------------|------|-----------------------|---------|
| Ph.D.   | Alagappa University        | 2014 | Computer Science      | Awarded |
| M.Phil. | Bharathidasan University   | 2004 | Computer Science      | First   |
| M.C. A  | Madurai Kamaraj University | 1988 | Computer Applications | First   |
| B. Sc   | Madurai Kamaraj University | 1985 | Chemistry             | First   |

## Teaching Experience

Total Teaching Experience : 34 Years

| Position                   | Institution         | Duration                 |
|----------------------------|---------------------|--------------------------|
| Professor and Head (i/c)   | Alagappa University | 04.01.2024 to till date  |
| Professor                  | Alagappa University | 10.12.2014 to till date  |
| Associate Professor        | Alagappa University | 27.07.2006 to 09.12.2014 |
| Lecturer (Selection Grade) | Alagappa University | 27.07.2003 to 26.07.2006 |
| Lecturer (Senior Scale)    | Alagappa University | 27.07.1998 to 26.07.2003 |
| Lecturer                   | Alagappa University | 10.11.1990 to 26.07.1998 |
| Teaching Assistant         | Alagappa University | 20.10.1989 to 09.11.1990 |

## Research Experience

Total Research Experience :10 Years

| Position    | Institution / University | Duration                |
|-------------|--------------------------|-------------------------|
| Ph.D. Guide | Alagappa University      | 10.12.2014 to till date |

## Academic and Additional Responsibilities

| S. No | Position            | UniversityBodies                            | Period     |            |
|-------|---------------------|---|------------|------------|
|       |                     |   | From       | To         |
| 1     | Head i/c            | Department of Computational Logistics       | 04.01.2024 | Till Date  |
| 2     | Director            | Science Campus, Alagappa University         | 25.05.2023 | Till Date  |
| 3     | Academic Counsellor | MCA DDE, Alagappa University                | 26.04.2022 | Till Date  |
| 4     | Director            | Data Management Center, Alagappa University | 17.05.2021 | 24.05.2023 |
| 5     | Warden              | AUCPE Women's Hostel                        | 16.03.2021 | 06.02.2022 |
| 6     | Chief Warden        | Alagappa University Hostels                 | 22.02.2021 | 25.05.2023 |
| 7     | Warden              | PG Men's Hostel                             | 09.07.2019 | 21.02.2021 |

## Areas of Research

- Video Processing
- Image Processing
- Cloud Computing

## Research Supervision/Guidance

| Program of Study |         | Completed | Ongoing |
|------------------|---------|-----------|---------|
| Research         | PDF     | -         | -       |
|                  | Ph.D.   | 06        | 04      |
|                  | M.Phil. | 46        | -       |
|                  | PG      | 236       | 17      |

|         |            |   |   |
|---------|------------|---|---|
| Project | UG/ Others | - | - |
|---------|------------|---|---|

## Publications

| International |             | National |             | Others                            |
|---------------|-------------|----------|-------------|-----------------------------------|
| Journals      | Conferences | Journals | Conferences | Books/Chapters/Monographs/Manuals |
| 117           | 53          | 03       | 27          | 04                                |

**Cumulative Impact Factor(asperJCR)** : 3.06  
**h-index** : 09  
**i10 index** : 07  
**Total Citations** : 310

## Publications

No. of PhD Thesis evaluated : 26  
 No. of PhD Public Viva Voce Examination conducted : 20

## Funded Research Projects

### Ongoing Projects:

| S. No | Agency                | Period     |            | Project Title  | Budget (Rs. in lakhs) |
|-------|-----------------------|------------|------------|--|-----------------------|
|       |                       | From       | To         |  |                       |
| 1.    | RUSA 2.0 EIR PHASE II | 01-12-2023 | 29-02-2024 | 3D Video Stabilization Using Weight Space Based Optimization       | 0.80                  |
| 2.    | Under RUSA 2.0        | 2019       | 2024       | Privacy Preserving and Securing Sensitive Data in Cloud Containers | 4.75                  |

|    |                |      |      |  |     |
|----|----------------|------|------|--|-----|
| 3. | Under RUSA 2.0 | 2022 | 2024 | Privacy Preserving and Securing Sensitive Data in Cloud Containers | 1.4 |
|----|----------------|------|------|--|-----|

### Completed Projects:

| S. No | Agency          | Period    |          | Project Title   | Budget (Rs. in lakhs) |
|-------|-----------------|-----------|----------|---|-----------------------|
|       |                 | From      | To       |   |                       |
| 1     | NTRO, New Delhi | July 2007 | Aug 2012 | Collaborative Directed Basic Research in Smart and Secure Environment | 100                   |

### Distinctive Achievements / Awards

- Certificate of Commemoration for completing 25 years of unblemished service
- Received Letter of Appreciation Certificate for Cultural Club Coordinator in Alagappa University
- Received Letter of Appreciation Certificate for Chief Warden in Alagappa University.

### Events organized in leading roles

Number of Seminars /Conferences /Workshops/ Events organized:

| Position                                  | Programme   | Duration            | Institution   |
|---|---|---------------------|---|
| Organizing Committee Member               | One-day National Seminar on Technology Trends in Digital World,                 | April 11, 2022      | Department of Computer Applications, Alagappa University, Karaikudi |
| Co-convener and Advisory Committee Member | National Conference on Recent Research Trends in Computer Science (NCRRTCS' 19) | November 4, 2019    | Department of Computer Applications, Alagappa University, Karaikudi |
| Chair                                     | International Conference on Computational Sciences                              | October 23-24, 2019 | Department of Computer Science, Alagappa University, Karaikudi      |

|                       |  |                      |  |
|-----------------------|--|----------------------|--|
| Co-Convener           | National Conference on Cybersecurity (NCCS-2018)   | January 25 ,2018     | Department of Computer Science Alagappa University, Karaikudi  |
| Co-Ordinator          | National Seminar on “Recent Research Trends and Developments in Computer Science                       | March 8-9, 2018      | Department of Computer Applications, Alagappa University, Karaikudi                                  |
| Co-Convener and Chair | International Conference on Information, Communication and Digital Security (ICICDS’18)                | March 21-22 ,2018    | Department of Computer Applications, Alagappa University, Karaikudi                                  |
| Chair                 | National Conference on Emerging Trends in Computing 2017   | March 13-14, 2017    | Department of Computer Science and Engineering, Alagappa University                                  |
| Chair                 | International conference on Advancements in Computing Resources  | February 15-16, 2017 | Skill Development Centre, Alagappa University  |
| Chair                 | International Conference on Mathematical Modeling and Computational Methods in Science and Engineering | February 20-22, 2017 | Ramaanujam Centre for Higher Mathematics and Department of Computer Mathematics, Alagappa University |
| Chair                 | International Conference on Innovations in Computer Science and Technology (ICICST 2016)               | April 4 - 5, 2016    | Department of Computer Science and Engineering, Alagappa University                                  |
| Chair                 | National conference on   | March 24, 2016       | Alagappa Institute of  |

|       |  |                   |   |
|-------|--|-------------------|---|
|       | Emerging Trends in Software Development (NCETSD-2016)                            |                   | Skill Development, Alagappa University                              |
| Chair | National conference on Recent Advancements in Software Development (NCRASD-2015) | March 23, 2015    | Skill Development Centre, Alagappa University                       |
| Chair | National Conference on Mining, Internetworking and Data Security                 | March 27-28, 2014 | Department of Computer Science and Engineering, Alagappa University |

## Events Participated

|   |      |
|---|------|
| Number of Conferences/Seminars/Workshops      | : 55 |
| Number of Seminars organized                  | : 03 |
| Number of Events organized                    | : 05 |
| Number of Invited/ Special Lectures delivered | : 10 |

## Membership

### Editorial Board

1. Reviewer, ICTACT Journal on Image and Video Processing (IJIVP) Publisher: ICT Academy of Tamil Nadu.
2. Reviewer, International Journal of Advanced Research Trends in Engineering and Technology (IJARTET) Publisher: ACE Publishers.
3. Reviewer, Journal of King Saud University - Computer and Information Sciences, SCIE Journal, Publisher: Elsevier.
4. Reviewer, Security and Privacy, ESCI Journal, Publisher: Wiley

### Advisory Board

| Year/Period | Name of the BoS/Administrative Committee / | Role |
|-------------|--|------|
|-------------|--|------|

|                       | <b>Academic Committee</b>   |        |
|-----------------------|---|--------|
| May 2023 to till date | M.Sc (CS & IT)  | Member |
| March 2023 to till    | Diploma Programme in Information Security,<br>Post-Graduate Diploma Programme in Cyber Security | Member |
| Aug 2021 to till date | Post Graduate Diploma in Data Science   | Member |
| Dec 2016 to till date | MCA   | Member |
| May 2016 to till date | BCA   | Member |

#### **Academic Bodies in Other Institutes / Universities**

| <b>Year/Period</b>      | <b>Name of the BoS/Administrative Committee / Academic Committee</b> | <b>Role</b> |
|-------------------------|--|-------------|
| June 2023 to till date  | Commerce (PG)  | BOS Member  |
| April 2022 to till date | M.Sc. (Information Technology)                                       | BOS Member  |

#### **Ph.D. Thesis Guided**

- No. of PhD Thesis evaluated : 06
- No. of PhD Public Viva-voce Examination conducted : 06

| <b>S. No</b> | <b>Name of the Scholar</b> | <b>Title of the Thesis</b>       | <b>Year of Completion</b> |
|--------------|----------------------------|----------------------------------|---------------------------|
| 1            | Dr.M. Ramesh               | Hybrid approach for Sports Video | 2024                      |



|   |                   |  |      |
|---|-------------------|--|------|
|   |                   | Classification Using Key-Frame Extraction and Optimization methods   |      |
| 2 | Dr.P. Karthick    | Efficient Video Compression using GAN and CNN Techniques   | 2023 |
| 3 | Dr.N. Gayathri    | Efficient Feature and Classification Techniques for Video Indexing and Retrieval                               | 2023 |
| 4 | Dr.N. Geetha      | Secure Video Transmission Framework using Symmetric Encryption and Meta-Heuristic based Optimal Key Generation | 2023 |
| 5 | Dr.K. Rajalakshmi | An Enhanced Video Steganographic Techniques for Embedding Data in Video Security                               | 2021 |
| 6 | Dr.D. Mohanapriya | An Efficient Human Tracking and Activity Recognition System in Video Surveillance                              | 2020 |

### List of Research Articles / Recent Publications

| S. No | Authors/ Title of the paper/ Journal  | Impact Factor |
|-------|---|---------------|
| 1     | S, Muthakshi., and <b>K. Mahesh</b> 2024. SECURE AND ENERGY-EFFICIENT TASK SCHEDULING IN CLOUD CONTAINER USING VMD-AOA AND ECC-KDF. Malaysian Journal of Computer Science. 37, 1 (Jan. 2024), 48–70.                      | 0.436         |
| 2     | Muthakshi, S., <b>K. Mahesh</b> (2023). Container Division and Optimization (CDO) Algorithm for Secured Job Processing in Cloud. In: Singh, Y., Singh, P.K., Kolekar, M.H., Kar, A.K., Gonçaves, P.J.S. (eds) Proceedings | 0.37          |

|   |  |       |
|---|--|-------|
|   | of International Conference on Recent Innovations in Computing. Lecture Notes in Electrical Engineering, vol 1001. Springer, Singapore.  |       |
| 3 | Muthakshi S and <b>K. Mahesh</b> 2023. Long-Term Container Allocation via Optimized Task Scheduling Through Deep Learning (OTS-DL) And High-Level Security. KSII Transactions on Internet and Information Systems, 17, 4, (2023), 1258-1275. DOI: 10.3837/tiis.2023.04.012.        | 1.5   |
| 4 | K. Panneerselvam, <b>K. Mahesh</b> , V. L. Helen Josephine, and A. Ranjith Kumar, "Effective and efficient video compression by the deep learning techniques," Computer Systems Science and Engineering, vol. 45, no.2, pp. 1047–1061, 2023.                                       | 4.397 |
| 5 | M. Ramesh & <b>K. Mahesh</b> (2023), Efficient key frame extraction and hybrid wavelet convolutional manta ray foraging for sports video classification, The Imaging Science Journal, DOI: 10.1080/13682199.2023.2191539   | 0.242 |
| 6 | Geetha, N., <b>K. Mahesh</b> , An Efficient Enhanced Full Homomorphic Encryption for Securing Video in Cloud Environment. Wireless Personnel Communication 123, 1553–1571 (2022).  | 2.019 |
| 7 | M. Ramesh, <b>K. Mahesh</b> , "Sports Video Classification Framework Using Enhanced Threshold Based Key Frame Selection Algorithm and Customized CNN on UCF101 and Sports1-M Dataset", Computational Intelligence and Neuroscience, vol. 2022, Article ID 3218431, 15 pages, 2022. | 3.12  |
| 8 | Karthick Panneerselvam, K. Rajalakshmi, V. L. Helen Josephine, Dhivya Rajan, L. Visalatchi, <b>K. Mahesh</b> , Meroda Tesfaye, "Improving the Security of Video Embedding Using the CFP SPE Method", Journal of Engineering, vol. 2022, Article ID 6903695, 5 pages, 2022.         | 2.58  |
| 9 | S Muthakshi, <b>K Mahesh</b> , "Container selection processing implementing extensive neural learning in cloud services", Materials Today: Proceedings,  | 1.46  |

|    |   |       |
|----|---|-------|
|    | 2021, ISSN 2214-7853.   |       |
| 10 | D. Mohanapriya and <b>K. Mahesh</b> , "Multi object tracking using gradient-based learning model in video-surveillance," in China Communications, vol. 18, no. 10, pp. 169-180, Oct. 2021, Doi : 10.23919/JCC.2021.10.012   | 2.688 |
| 11 | S Muthakshi, <b>K Mahesh</b> , "Enhanced Cloud Optimization Model for CSP, Tenant and User Through Container," 2021 IEEE International Conference on Mobile Networks and Wireless Communications (ICMNBC), Tumkur, Karnataka, India, 2021, pp. 1-5, IEEE Explore, Doi:10.1109/ICMNBC52512.2021.9688531.                               | 1.21  |
| 12 | N. Gayathri, <b>K. Mahesh</b> "Improved Fuzzy-Based SVM Classification System using Feature Extraction for Video Indexing and Retrieval" International Journal of Fuzzy Systems, Volume: 22, Number: 5, Pg. No: 1716–1729, ISSN No:1562-2479, DOI: HTTPs://doi.org/10.1007/s40815-020-00884-z, Published Online:28.05.2020[Springer]. | 4.085 |
| 13 | N. Geetha and <b>K. Mahesh</b> , "Video Frame Encryption using Symmetric Algorithm," 2020 International Conference on Communication and Signal Processing (ICCSP), 2020, pp. 114-118, IEEE Explore.   | 1.5   |
| 14 | Subraja, K., Geetha, N., & <b>K. Mahesh</b> , (2020). BITS – A Novel Video Encryption Algorithm. In International Journal of Innovative Technology and Exploring Engineering (Vol. 9, Issue 8, pp. 101–105). Blue Eyes Intelligence Engineering and Sciences Engineering and Sciences Publication - BEIESP.                           | 5.662 |
| 15 | M. Ramesh and <b>K. Mahesh</b> , "A Performance Analysis of Pre-trained Neural Network and Design of CNN for Sports Video Classification," 2020 International Conference on Communication and Signal Processing (ICCSP), 2020, pp. 0213-0216, IEEE Explore.   | 1.55  |
| 16 | M. Ramesh, <b>K. Mahesh</b> , "Sports Video Classification with Deep  | 5.662 |

|    |   |       |
|----|---|-------|
|    | Convolution Neural Network: A test on UCF101 Dataset", International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Volume-8 Issue-4S2, April 2019.  |       |
| 17 | D. Mohanapriya, <b>K. Mahesh</b> ," Robust Visual Target Tracking Via Nearest Sequential Boundary Pattern" International Journal of Pure and Applied Mathematics Volume 118 No. 7 2018, 207-213, ISSN: 1311-8080 (printed version); ISSN: 1314-3395 (on line version), February 2018.   | 0.53  |
| 18 | S. Priyadharshini, D. Mohanapriya, <b>K. Mahesh</b> ," A Robust Framework for Multiple Object Detection and Tracking in Video Surveillance" International Journal of Pure and Applied Mathematics, Volume 118 No. 7 2018, 207-213, ISSN:1311-8080 (printed version); ISSN: 1314-3395 (on-line version), February 2018.              | 0.53  |
| 19 | S. Karolin Mary, D. Mohanapriya, <b>K. Mahesh</b> ," Sequential Pixel Text Detector: A Cohesive Framework for Text Detection and Recognition in Video", International Journal of Pure and Applied Mathematics, Volume 118 No. 7 2018, 207-213, ISSN: 1311-8080 (printed version); ISSN: 1314-3395 (on-line version), February 2018. | 0.53  |
| 20 | N. Gayathri, <b>K. Mahesh</b> ," A Systematic Study on Video Indexing" International Journal of Pure and Applied Mathematics, Volume 118 No. 7 2018, 207-213, ISSN: 1311-8080 (printed version); ISSN: 1314-3395 (on-line version), February 2018.  | 0.53  |
| 21 | K. Rajalakshmi, <b>K. Mahesh</b> ," ZLBM: Zero Level Binary Mapping Technique for Video Security" Multimedia Tools and Applications – Springer, Vol 77, Issue 11, Page no. 13225-13247, June 2018, Online: July 2017.   | 1.403 |
| 22 | D.Mohanapriya, <b>K. Mahesh</b> ," A novel foreground region analysis using NCP-DBP texture pattern for robust visual tracking" Multimedia Tools and Applications–Springer, "Intelligent Systems for Digital Archiving, Analysis and Documentation of Multimedia Content, Online: March 2017  | 1.403 |

|    |  |       |
|----|--|-------|
| 23 | K. Rajalakshmi, <b>K. Mahesh</b> , “A Review on Video Compression and Embedding Techniques”, International Journal of Computer Applications (IJCA), Vol.141, No.12, May 2016, pp.32-36, ISSN: 0975-8887.                                       | 3.152 |
| 24 | <b>K. Mahesh</b> , S. Narmatha, “Independent Component Analysis (ICA) based Face Recognition System”, International Journal for Advance Research in Engineering and Technology (IJARET), Vol.3, Issue VII, July 2015, pp.4-8, ISSN: 2320-6802. | 8.504 |
| 25 | <b>K. Mahesh</b> , N. Priyanka, “A New Hybrid Video Segmentation Approach to detect moving objects”, International Journal for Advance Research in Engineering and Technology (IJARET), Vol.3, Issue VII, July 2015, pp.9-13, ISSN: 2320-6802. | 8.504 |

### Resource persons in various capacities

International Conferences : 01  
Invited Lectures : 09

Date :

(Signature)

Place :

Name

Designation