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**Dr.J.HEMALATHA M.E., Ph.D.,**

**Mobile: +91 9025777127 , 6369334944**

**Email :** [**jhemalathakumar@gmail.com**](mailto:jhemalathakumar@gmail.com)

**ACADEMIC QUALIFICATIONS**

| S.No | Degree | Specialization | Year of Passing | Mode of Study | Class / Position | Agg. % / CGPA | Institution | University |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 1. | Ph.D. | Computer Science and Engineering | 2019 | Full Time | - | Highly Recommended | Thiagarajar College of Engineering, | Anna University |
| 2. | M.E | Computer Science and Engineering | 2013 | Full Time | First class | 8.06 | P.S.R. Engineering College | Anna University |
| 3. | B.E | Computer Science and Engineering | 2011 | Full Time | First Class | 76% | P.S.R. Engineering College | Anna University |

**EXPERIENCE DETAILS**

| Sl.No. | Designation | Institution | Experience (Duration) | Experience (in years) |
| --- | --- | --- | --- | --- |
| 1 | Assistant Professor | P.S.R. Engineering College | 2.5.05.2013 – 30.04.2014 | 11 months |
| 2 | Assistant Professor | Kalasalingam Academy of Research & education | 2.7.2018-  28.2.2019 | 8 months |
| 3 | Academic Coordinator & Associate Professor | Sri Vidya college of Engineering & Technology | 21.6.2019 –  30.11.2020 | 1 Year 5 months |
| 4 | Assistant Professor & Research Coordinator | AAA College of Engineering and Technology | 1.12.2020 –  31.06.2021 | 6 months |
| 5 | Associate Professor & Research Coordinator | AAA College of Engineering and Technology | 1.7.2021-  Till Date |  |
| TOTAL | | | | 5 years |

**RESEARCH DETAILS**

| Sl.No. | Designation | Institution | Experience (Duration) | Experience (in years) |
| --- | --- | --- | --- | --- |
| 1 | Research Scholar (Full Time) | Thiagarajar College of Engineering | 22.05.2014 - 30.5.2018 | 4 Years |
|  |  | TOTAL |  | 4 years |

**ACADEMIC DETAILS**

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| --- | --- |
| **Book publications** (give the title, publisher & year of publication) | Attached in separated sheet |
| **Paper : Journal Publication** (give the no. of publications) (attach the Xerox copy of the first page of the publications) | **International : 14**  **National : NIL** |
| **Paper : Conference Publication** (give the no. of publications) | **International : 4**  **National : NIL** |

**Book Publication**

1. Artificial Intelligence and Machine Learning, Veda Publications, Vol.1, Issue.1, December 2022.
2. Cognitive Computing A deep view in Architecture, Technologies and Artificial Intelligence based Applications. Hemalatha J, Bala Subramanian Chokkalingam, Vivek V, Sekar Mohan. Principles and Applications of Socio-Cognitive and Affective Computing, **IGI Global**, November 2022. ISBN13: 9781668438435. DOI: 10.4018/978-1-6684-3843-5
3. Generalization and Efficiency on Finger Print Presentation Attack Anomaly Detection. Hemalatha J, Vivek V, Kavitha Devi M.K., Sekar Mohan. Handbook of Research on computer Vision and Image processing in the Deep Learning Era. IGI Global, November 2022. DOI: 10.4018/978-1-7998-8892-5.ch023
4. A comparative note on recent advances of signal/image processing techniques in healthcare.J.Hemalatha, C.Bala Subramanian and S.Geetha. ‘Advances in telemedicine for health monitoring: technologies, design and applications, **IET**. April 2020.
5. Performance Analysis of Image Denoising with Curvelet Transform in Detecting the Stego Noise. J Hemalatha, MKK Devi, S Geetha, Innovations in Computer Science and engineering, 445-453, 2019**(Springer)**.
6. A Comparative Review of Various Machine Learning Approaches for Improving the Performance of Stego Anomaly Detection. HemalathaJeyaprakash, MK KavithaDevi, S Geetha . Handbook of Research on Network Forensics and Analysis Techniques, 351-371, 2018**(IGI Global)**.
7. A Recent Study on High Dimensional Features Used in Stego Image Anomaly Detection, J Hemalatha, MK KavithaDevi, S Geetha, Applications of Security, Mobile, Analytic, and Cloud (SMAC) Technologies for Effective Information Processing and Management. DOI: [10.4018/978-1-5225-4044-1.ch003](http://dx.doi.org/10.4018/978-1-5225-4044-1.ch003), January 2018**(IGI Global)**.
8. Effective Recognition of Stereo Image Concealed Media of Interpolation Error with Difference Expansion, J Hemalatha, KD MK, Combating Security Breaches and Criminal Activity in the Digital Sphere, 157-165, 2016**(IGI Global).**

**International Publications**

1. Arulananth TS, Chinnasamy P, Babu JC, Kiran A, Hemalatha J, Abbas M. Edge detection using fast pixel based matching and contours mapping algorithms. PLoS One. 2023 Aug 11;18(8):e0289823. doi: 10.1371/journal.pone.0289823. PMID: 37566574; PMCID: PMC10420379. **(Impact Factor: 3.7)**
2. J. Hemalatha, M. Sekar, Chandan Kumar, Adnan Gutub, Aditya Kumar Sahu,Towards improving the performance of blind image steganalyzer using third-order SPAM features and ensemble classifier,Journal of Information Security and Applications,Volume 76,2023,103541,ISSN 2214-2126,<https://doi.org/10.1016/j.jisa.2023.103541>.**(Impact Factor: 5.6)**
3. An Efficient DenseNet-Based Deep Learning Model for  
   Malware Detection, **Jeyaprakash Hemalatha**, S. AbijahRoseline, SubbiahGeetha, SeifedineKadry, and RobertasDamaševičius. Entropy, Vol. 23 Issue 3, March 2021. **(Impact Factor: 2.524)**
4. Multi-directional block based PVD and modulus function image  
   steganography to avoid FOBP and IEP, Aditya Kumar Sahu, Gandharba Swain, MonalisaSahu, **J. Hemalatha**. Journal of Information Security and Applications, Vol. 58, May 2021. Elsevier. **(Impact Factor: 4.95)**
5. Reversible Data Hiding Based on Varying Radix Numeral System, **J. Hemalatha**, S. Geetha, R. Geetha, C. Balasubramanian, Daniela Elena Popescu, D. Jude Hemanth. Computers, Materials and Continua, Vol.69, No.2, June 2021. **(Impact Factor: 3.772)**
6. An Efficient Steganalysis of Medical Images by Using Deep Learning Based Discrete Scalable Alex Net Convolutionary Neural Networks Classifier, [**Hemalatha, J.**](https://www.ingentaconnect.com/search;jsessionid=ykhrp5n9nmab.x-ic-live-01?option2=author&value2=Hemalatha,+J.),  [Geetha, S.](https://www.ingentaconnect.com/search;jsessionid=ykhrp5n9nmab.x-ic-live-01?option2=author&value2=Geetha,+S." \o "Search for articles by this author), [Mohan Sekar](https://www.ingentaconnect.com/search;jsessionid=ykhrp5n9nmab.x-ic-live-01?option2=author&value2=Mohan,+Sekar), [Nivetha S.](https://www.ingentaconnect.com/search;jsessionid=ykhrp5n9nmab.x-ic-live-01?option2=author&value2=Nivetha,+S.)  [Journal of Medical Imaging and Health Informatics](https://www.ingentaconnect.com/content/asp/jmihi;jsessionid=ykhrp5n9nmab.x-ic-live-01), Vol.11, No.10, October 2021. **(Impact Factor: 0.659)**
7. Improving image steganalyser performance through curvelet transform denoising, **J Hemalatha**, MKK Devi, S Geetha, Cluster Computing 22 (5), 11821-11839, 2018.**(Impact Factor: 1.809)**
8. Stego Detection: Image Steganalysis Using a Novel Hidden Stego Visual Geometry Group–Based CNN Classification. Hemalatha J, Bala Subramanian Chokkalingam, Vivek V, Sekar Mohan. Journal of Applied Security Research, Taylor &Francis.August 2022. **(ESCI)**
9. Data Hiding Using PVD and Improving Security Using RSA Hemalatha.J., Aditya Kumar Sahu., Balasubramanina.C. Journal of Applied Security Research, Taylor & Francis. July 2021. **(ESCI)**
10. Enhancing the JPEG image steganography security by RSA and attaining high payload using advanced DCT replacement method and modified quantisation table, **J Hemalatha**, MKK Devi, S Geetha, International Journal of Business Intelligence and Data Mining 14 (1-2), 138-154, 2019. **(Scopus Indexed)**
11. Improving Image Steganalyser Performance using Second Order SPAM Features Extracting through Contourlet Transform, C Bala Subramanian, **J Hemalatha**, International Journal of Engineering and Advanced Technology (IJEAT) ISSN: 2249 – 8958, Vol. No-9, Issue No.1S4, Dec 2019.**(Scopus Indexed)**
12. A New Secure Group Key Transfer Protocol in Big Data, **HemalathaJeyaprakash**, S Vairachilai, Journal of Advanced Research in Dynamical & Control Systems 10 (6), 1888-1893, 2018. **(Scopus Indexed)**
13. A Survey on Recommendation System: Collaborative Filtering, S Vairachilai, S Urkude, **J Hemalatha**, Journal of Advanced Research in Dynamical & Control Systems 10 (6), 1850-1857,2018. **(Scopus Indexed)**
14. Blind image Steganalysis of interpolation error based data hiding in stereo images**, J Hemalatha**, MK KavithaDevi, International Journal of Applied Engineering Research 10 (20), 16848-16852, 2015. **(Scopus Indexed)**
15. Effective image stego intrusion detection system using statistical footprints of the steganogram and fusion of classifiers**, J Hemalatha**, MKK Devi, S Geetha Int. J. Computer Aided Engineering and Technology Inderscience, May 2020.
16. KNN Based Power Efficiency in Wireless Sensor Networks, **J Hemalatha**, R PalaniKumar, K Ramasamy, International Journal of Emerging Technology and Advanced Engineering, 2013
17. Use of Robotics in Agricultural Field and Its Applications: Short CommentaryV Chimmani, **J Hemalatha**, P Velmurugadass, SS AnandAdv Robot Autom 8 (190), 2, 2019.

**Patents Publications**

1. **Hemalatha.J (**2020).Improved Blind Image Steganalyzer Performance Using Curvelet and Novel Third Order SPAM Features. THE PATENT OFFICE KOLKATA, 31/01/2020. Application No: 202041002590 A .

**Conference Publications**

1. ManjunathKumar.T, Murugeswari.R, Devaraj.D, **Hemalatha.J**. “Comparison of Deep Learning and Random Forest for Rumor Identification in Social Networks”., International Conference on Innovative Computing and Communication, pubisher: Springer, Organized by Faculty of Electrical Engineering and Computer Science, VSB-Technical Umiversity of Ostrava, CzechRepublic, Europe, March 21-22nd 2019.
2. **Hemalatha.J**, Kavitha Devi M.K. “Study on machine learning approaches for stego anomaly detection”. 3rd International conference on Artificial Intelligence & Robotics. June 28-29, 2017 San Diego, USA. Published in Advances in Robotics & Automation. DOI- 10.4172/2168-9695-C1-009. Volume 6, Issue. 2.
3. **Hemalatha.J**, Palanikumar.R “Online Self-Test on WSN Nodes”, Proceeding on International Conference on Emerging Marvels in Information and Computer Science and Engineering (EMICS’13), 2013.
4. **Hemalatha.J**, Palanikumar.R. “Online self -Test on WSN Nodes”, Processing on CSIR New Delhi sponsored 9th National Conference on Advanced Image Processing and Networking, 2013.

**Workshop& Seminars Attended**

1. One day Workshop on “Artificial Intelligence and Machine Learning” organized by the Department of Electrical and Electronics Engineering, AAA College of Engineering and Technology Sivakasi on 30.04.2022.
2. TEQIP II sponsored Three days’ workshop on “Mathematical Essentials for Cryptology Research” organized by Information Technology, Thiagarajar College of Engineering, Madurai from October 16-18, 2014.
3. TEQIP and CSI SIGDATA One week workshop on “Databases – Learning through Activity”, organized by Department of CSE, Thiagarajar College of Engineering, Madurai from June 23-27, 2014.
4. TEQIP II sponsored One week workshop on “Soft Computing using Sci-Lab”, conducted by NITTTR, Chandigarh from 21- 25th July 2014 and organized by Centre for Engineering Education, Thiagarajar College of Engineering, Madurai – 625 015.
5. TEQIP sponsored One day national seminar on “Discrete Mathematics and its Applications” organized by the Department of Mathematics, Thiagarajar College of Engineering Maduria, on 15th October 2014.
6. One day workshop on “Network Performance and Vulnerability Analysis”, organized by the Department of CSE, Thiagarajar College of Engineering, Madurai, on 6th April 2015.
7. TEQIP IIspondoredone day workshop on “R software for Statistical computing in Research” organized by the Dartment of Mathematics, Thiagarajar College of Engineering, Madurai, on 11th November 2016.

**FDP Attended**

1. One-Week online Faculty Development Programme on “Artificial Intelligence and Machine Learning” Organized by E&ICT Academy supported by Ministry of Electronics and Information Technology (MeitY), Govt of India, IIT Guwahati held from 14-19 March, 2022 in association with Department of Computer Science, Manipur University and support from TechvictusPvt.Ltd.
2. 12 hours of Faculty Development Program on “Introduction to Python Programming” conducted by ICT Academy from 29.03.2021 to 03.04.2021.
3. TEQIP sponsored one Day Faculty Development Programme on “Fundamentals of Real Analysis for Mathematicians and Engineers” organized by the departmentof Mathematics, Thiagarajar College of Engineering, Madurai, during 10th October 2014.

**Prizes and Awards**

1. 1st prize in paper presentation on the topic of “Robot Surgery” at Resilience’12 conducted by ME Association, 2012.
2. 2nd prize in national level technical symposium on the topic of “Pervasive Computing in Car Technology” at Pratiyogita’10 conducted by Department of IT, by Lord venkateshwara Engineering College, 2010.
3. The Best- Professional Award- National Level Technical Symposium, Department of CSE, Sasurie College of Engineering, 2010.
4. 2nd prize in paper presentation on the topic of “Pervasive Computing on wearable devices”, conducted by Association of Basic Sciences, P.S.R. Engineering College, 2008.
5. 2nd prize in “Web Designing” at Technical symposium conducted by CAFÉ, 2008.
6. 1st prize in paper presentation on the topic of “Robot Surgery” at Resilience’12 conducted by ME Association, 2012.
7. 2nd prize in national level technical symposium on the topic of “Pervasive Computing in Car Technology” at Pratiyogita’10 conducted by Department of IT, by Lord Venkateshwara Engineering College, 2010.

**Extra-Curricular & Awards**

1. Got Championship in Chess Tournament conducted in P.S.R Engineering College District Level.

**I declare that the above particulars furnished by me are true to the best of my knowledge.**

**Place :**

**Date :**

**SIGNATURE**

**(Dr.J.Hemalatha)**