

## Detailed Curriculum Vitae



**Dr.P.Eswaran, M.Sc., M.Tech., Ph.D**  
**Associate Professor**

### Contact

Address : Department of Computer Applications  
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### Academic Qualifications

Course	Branch	Institution	Year	Class
Ph.D. (Regular)	Computer and Information Technology	Manonmaniam Sundaranar University, Department of Computer Science & Engineering, Tirunelveli.	2006 to 2010	Awarded
M.Tech.	Computer and Information Technology	Manonmaniam Sundaranar University, Centre for Information Technology & Engineering, Tirunelveli.	2003 to 2005	First Class with Distinction
M.Sc.	Computer Science and Information Technology	Madurai Kamaraj University, Mannar Thirumalai Naickar College, Madurai.	2001 to 2003	First Class

### Teaching Experience

Total Teaching Experience : **15.1 Years**

Position	Institution	Duration
<b>Associate Professor</b>	<b>Alagappa University, Karaikudi.</b>	<b>31.05.2024 to Till Date</b>
Assistant Professor	Alagappa University, Karaikudi.	31.05.2012 to 30.05.2024
Assistant Professor	PSN College of Engineering and Technology, Tirunelveli	Sep. 2010 to 30 <sup>th</sup> May 2012
Guest Lecturer	Centre for Information Tech. & Engg., Manonmaniam Sundaranar University, Tirunelveli.	July 2005 to November 2005

## Research Experience

Total Research Experience : **18.7 Years**

Position	Institution / University	Duration
UGC – Senior Research Fellowship	Manonmaniam Sundaranar University, Dept. of Computer Science & Engg.	24 <sup>th</sup> April 2010 to 18.08.2010
UGC – Junior Research Fellowship	Manonmaniam Sundaranar University, Dept. of Computer Science & Engg.	24 <sup>th</sup> April 2008 to 23 <sup>rd</sup> April 2010
USRF (University Stipendiary Research Fellowship)	Manonmaniam Sundaranar University, Dept. of Computer Science & Engg.	Jan. 2007 to April 2008
Research Scholar – Full Time	Manonmaniam Sundaranar University, Dept. of Computer Science & Engg.	Oct. 2006 to Dec. 2006 (Non – Stipend)

## Academic and Additional Responsibilities

S. No.	Position	University Bodies	Period	
			From	To
1	Head of the Dept. i/c	Dept. of Computational Logistics	21.02.2025	Till Date
2	Deputy Director	Online Learning Programmes	03.01.2024	Till Date
3	Director	Data Management Centre	24.05.2023	Till Date
4	Nodal Officer	National Test Centre (NTA)	06.11.2019	Till Date
5	Deputy Director	Data Management Centre	17.05.2021	23.05.2023
6	Coordinator	Coaching Scheme for NET Exam	16.08.2019	18.04.2022
7	Deputy Coordinator	Cultural Club	05.09.2018	18.04.2022
8	Single Point of Contact (SPOC) of Alagappa University	Smart India Hackathon - 2022	16.02.2022	14.04.2022
9	Coordinator	SWAYAM (Department Level)	11.12.2017	Till Date

## Areas of Research

- Medical Data Mining (Chronic Kidney Disease diagnosis)
  - ✓ Data analysis,
  - ✓ Disease diagnosis model development
- Digital Image Processing
  - ✓ Minerals Identification in Beach Sand.
  - ✓ Covid-19 disease identification from Chest X-ray images.

## Patents Filed

Sl. No.	Patent Number	Patent Title	Publication date	Role
1	201941041826	Design of Real Time Smart Health Care System Through Data Mining and IoT	25.10.2019	Applicant
2	201941044051	Experimental Analysis of a Solar Cooker with a Parabolic Trough Enhanced with PCM based Thermal storage	31.10.2019	Inventor
3	201931039857	IoT based Integrated Device and System for Health Analysis,	08.11.2019	Applicant

## Research Supervision/Guidance

Program of Study		Completed	Ongoing
Research	Ph.D.	08	02
	M.Phil.	27 (Regular) 07 (SSP)	Nil
Project	PG	57	Nil
	UG / Others	05	Nil

## Candidates Completed Ph. D., Degree

Sl. No.	Name of the Candidate	Title of the Thesis	Discipline	Date of Award	University
1	V.Umadevi Reg. No. R20091196	Design and Analysis of Rake Receiver Algorithm for WCDMA	Computer Science (PT)	23.08.2023	Alagappa University, Karaikudi
2	A.Pramila, Reg. No. R20161783	Efficient Clinical Decision Support System for Diagnosis of Chronic Kidney Disease	Computer Science (FT)	26.8.2022	Alagappa University, Karaikudi
3	LJerlin Rubini, Reg. No. R20091118	An Optimal Feature Selection and Intelligent Classification Methods for Chronic Kidney Disease Prediction	Computer Science (PT)	25.10.2021	Alagappa University, Karaikudi
4	K.Shankar, Reg. No. 0935	Secret Image Sharing Schemes with Encrypted Shadow Images using Elliptic Curve Cryptography	Computer Science (FT)	17.02.2017	Alagappa University, Karaikudi
5	S.Ananthababu, Reg. No. 7680	Wavelet Based Image Compression using Improved Coding Techniques	Computer & Info. Tech. Engg. (PT)	27.06.2019	M. S. University, Tirunelveli.
6	T.J.Benetic Jose, Reg. No. 7678	An Enhanced Approach for Hidden Text Detection in Digital Images	Computer Science (PT)	27.01.2017	M. S. University, Tirunelveli.
7	A.Nagalinga Rajan, Reg. No. 7679	Robust Digital Image Steganographic Schemes	Computer Science & Engg. (PT)	26.05.2016	M. S. University, Tirunelveli.
8	R.Sunder, Reg. No. 7801	Improvement of Embedding Capacity of Digital Image Steganographic Schemes	Computer & Info. Tech. Engg. (PT)	27.05.2016	M. S. University, Tirunelveli.

## Total Number of Research Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals
71	23	Nil	1	12

<b>Cumulative Impact Factor (as per JCR) :</b>	<b>46.494</b>
<b>h-index :</b>	<b>24</b>
<b>i10 index :</b>	<b>37</b>
<b>Total Citations :</b>	<b>1955</b>

### Funded Research Projects

Sl. No.	Funding Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1	RUSA 2.0 Phase II	June 2022	June 2024	Novel Data Classification Model for Identification of Chronic Kidney Disease	1.4
2	RUSA 2.0 Phase I	April 2019	April 2022	Novel Data Classification Model for Identification of Chronic Kidney Disease	2.5
3	Alagappa University	March 2017	March 2018	Multilevel Number Plate Recognition (MNPR)	0.35

### Distinctive Achievements / Awards

1. **Academic and Research Excellence Award – 2024** with **Rs.3000/- Cash** from Alagappa University, Karaikudi recognition of the contribution made towards **Excellence in Research** at Alagappa University on 05.09.2024.
2. **Best Paper Award** at the Second IEEE and ACM Collaborative International Conference on Emerging trends in Information Technology and Engineering on February 22- 23, 2024 organized by School of Computer Science Engineering and Information Systems, VIT, Vellore.
3. **Appreciation Certificate** for outstanding academic and research excellence in acquiring the patent during the academic years 2020-2021 to 2022-2023 on 05.09.2023.
4. **Promising Researcher Award – 2022** with **Rs.3000/- Cash** from Alagappa University, Karaikudi recognition of the contribution made towards **Excellence in Research** at Alagappa University on 05.09.2022.
5. **Vallal Alagappan Research Recognition Award - 2020** from Alagappa University, Karaikudi for contribution towards the Enhancement of Research Outcome of the University in the form of “h” index on 12.01.2021.
6. **Top Cited Article Award – 2020-2021** from International Journal of Imaging Systems and Technology (Wiley).
7. **Junior and Senior Research Fellowship Award – (JRF & SRF) by University Grants Commission, Govt. of India, New Delhi.**
8. **USRF (University Stipendiary Research Fellowship) Award** by **M. S. University, Tirunelveli** for Pursuing Regular Ph.D. Degree.
9. **Best Volunteer Award – 2002** at Mannar Thirumalai Naickar College, Madurai.
10. Honoured for Secured **First Place in Taluk Level Tamil Training Contest**, Periyakulam Taluk., Theni (Dist.) in the year 1994.
11. Received the **Special Service Project** Certificate for **National Integration Special Camp Project, NSS** (From 1.10.1994 to 10.10.1994).
12. Received the **Special Service Project** Certificate for **One Day Special Service Project, NSS** (From 24.06.1995 to 25.06.1995 and 08.07.1995).

## Events Participated

### Conferences / Seminars / Workshops: 45

1. Conference:
  - i. International – 15
  - ii. National – 6
2. Seminar:
  - i. National – 11
3. Workshop:
  - i. International – 4
  - ii. National – 9

## Events Organized in Leading Rolls

Number of Seminars / Conferences / Workshops / Events organized : 17

Sl. No.	Name of the Programme	Name of the Organization & Date	Role
1	Internal Hackathon for Smart India Hackathon – 2022	Alagappa University, 12.04.2022	<b>Organizing Secretary</b>
2	DST – PURSE Sponsored Two Day National Seminar on “Recent Research Trends and Developments in Computer Science”.	Alagappa University, 8 <sup>th</sup> & 9 <sup>th</sup> March 2018	<b>Organizing Secretary</b>
3	International Conference on “Innovations in Computer Science & Technology”.	Alagappa University, 4 <sup>th</sup> & 5 <sup>th</sup> April 2016	<b>Coordinator</b>
4	One day national level seminar on “Career Opportunities in SMAC and IoT”.	Alagappa University, 31.03.2015	<b>Coordinator</b>
5	35 <sup>th</sup> South Zone Inter University Youth Festival – 2019 in Collaboration with Association of Indian Universities (AIU), New Delhi.	Alagappa University, 18 <sup>th</sup> to 22 <sup>nd</sup> December 2019	<b>Co-organizing Secretary</b>
6	Alagappa University Talent Exhibit Show-2016	Cultural Club, Alagappa University, October 3 – 5, 2016	<b>Event Coordinator</b>
7	National Seminar on Recent Developments in Computer Networks	Dept. of Comp. Applications, Alagappa University, 7 <sup>th</sup> & 8 <sup>th</sup> November 2016	<b>Co-Convener</b>
8	Two Day Short Term Training Programme on Hands on Training in Computer Networks and R Programming	Dept. of Comp. Applications, Alagappa University, 31 <sup>st</sup> Jan. & 1 <sup>st</sup> Feb. 2018	<b>Organizing Committee Member</b>
9	International Conference on Information, Communication & Digital Security	Dept. of Comp. Applications, Alagappa University, 21 <sup>st</sup> & 22 <sup>nd</sup> March 2018	<b>Organizing Committee Member</b>
10	Two Day Short Term Training Programme on Mobile Apps	Dept. of Comp. Applications, Alagappa University, 4 <sup>th</sup> & 5 <sup>th</sup> April 2019	<b>Organizing Committee Member</b>

11	National Conference on Recent Research Trends in Computer Science	Dept. of Comp. Applications, Alagappa University, 04.11.2019	<b>Co-Convenor</b>
12	Two Days Workshop on Current Career Opportunities for Data Science & Micro Services in IT Sector	Dept. of Comp. Applications, Alagappa University, 16 <sup>th</sup> & 17 <sup>th</sup> March 2023	<b>Organizing Committee Member</b>
13	One Day National Seminar on Technology Trends in Digital World	Dept. of Comp. Applications, Alagappa University, 11.04.2022	<b>Organizing Committee Member</b>
14	One Day National Seminar on Artificial Intelligence in Healthcare Diagnosis and Beyond	Dept. of Comp. Applications, Alagappa University, 20.10.2023	<b>Organizing Committee Member</b>
15	Alagappa University Talent Exhibit Show-2017	Cultural Club, Alagappa University, 12-14 Oct. 2017	<b>Advisory Committee Member</b>
16	Alagappa University Inter Collegiate Cultural Festival-2018	Cultural Club, Alagappa University, 24 <sup>th</sup> & 25 <sup>th</sup> March 2018	<b>Event Coordinator</b>
17	TechFest-2018	Alagappa Institute of Skill Development, 16.10.2018	<b>Event Organizer / Judge</b>

## Membership

### Professional Bodies

1. Member – International Association of Computer Science and Information Technology (IACSIT), Singapore (Member No.: 80332865).
2. Member, International Association Engineers (IAENG), Hong Kong. (Member No.: 187224)

### Editorial Board

1. Co-Editor, International Conference on Innovations in Computer Science and Technology Organized by the Department of Computer Science and Engineering, Alagappa University, Karaikudi, Tamil Nadu on 4<sup>th</sup> & 5<sup>th</sup> April 2016.

### Advisory Board

<b>Year/Period</b>	<b>Name of the BoS / Administrative Committee / Academic Committee</b>	<b>Role</b>
2023 Onwards	BCA Degree Board of Studies of Alagappa University, Karaikudi.	Chairman
2023 Onwards	PGDCA Theory Paper Evaluation Board of Alagappa University, Karaikudi.	Chairman
2013 Onwards	MCA Degree Board of Studies of Alagappa University, Karaikudi.	Member
2023 Onwards	M.Sc. (AI & DS) Degree Board of Studies of Alagappa University, Karaikudi.	Member
2022 Onwards	B.Sc., Artificial Intelligence & Machine Learning Board of Studies of Alagappa University, Karaikudi.	Member
2017 Onwards	BCA Degree Board of Studies of Alagappa University, Karaikudi.	Member
2019 - 2022	B.Sc. (Computer Science) Board of Studies of Directorate of Distance Education, Alagappa University, Karaikudi.	Member
2013 Onwards	Doctoral Committee (Ph.D. Registration and Progress Monitoring Committee)	Member

## Academic Bodies in other Institutes / Universities

Year/Period	Name of the BoS / Administrative Committee / Academic Committee	Role
2021 Onwards	M.E. Computer Science and Engineering Board of Studies of Manonmaniam Sundaranar University, Tirunelveli	Member
2020 Onwards	M.C.A. Board of Studies of Manonmaniam Sundaranar University, Tirunelveli	Member
2020 Onwards	B.Sc. & M.Sc. (IT/ IT & System Management / Networking & Information Technology /IT & E Commerce Board of Studies of Manonmaniam Sundaranar University, Tirunelveli	Member
2019 Onwards	B.Voc. Software Development Board of Studies of Mannar Thirumalai Naickar College, Madurai.	Subject Expert
2019 Onwards	B.Sc. (IT) Board of Studies of Mannar Thirumalai Naickar College, Madurai.	Subject Expert
2019 Onwards	Academic Audit for the Department of Information Technology	Subject Expert
July 2018 – July 2021	B.Sc., (Comp. Sci.) & (Info. Tech.) Board of Studies of Bharathidasan University, Tiruchurappalli	Member
2013 Onwards	Board of Studies in PSN College of Engineering & Technology, Tirunelveli	Member
2019 Onwards	B.Sc. & M.Sc. (Comp. Sci.) Board of Studies of J. J. College of Arts and Science, Pudukkottai	Member
August 2018 to August 2021	MCA Board of Studies of Nehru Memorial College, Puthanampatti, Tiruchirappalli	Member (Subject Expert)
2020 Onwards	PGDCA Board of Studies of Fatima College, Madurai	Subject Expert
2014 Onwards	Academic Audit for Department of Computer Applications (MCA)	Subject Expert
February 2022 Three Years	Board of Studies in Yadava College, Madurai.	Member
2012 Onwards	B.E. & M.E. Computer Science and Engineering Board of Studies of PSN College of Engineering & Technology, Tirunelveli	Member

### Others

1. Member, Doctoral Committee in Anna University, Chennai.
2. Member, Doctoral Committee in Manonmaniam Sundaranar University, Tirunelveli.
3. Member, Doctoral Committee in Sathyabhama University, Chennai.
4. Member, Doctoral Committee, Noorul Islam University, Nagercoil.
5. Member, Doctoral Committee in VIT University, Vellore.

## Ph.D. Thesis Evaluated

**Ph.D. Thesis Evaluation : 20**

**Ph.D. Viva Voce Examination Conducted : 16**

Sl. No.	Name of the Scholar	Title of the Thesis	Name of the University and Year
1	T.S.Savita Reg. no. 900718893001	Emergency Alert System-Detection of Distributed Denial of	Osmania University,



		Service Attack by Implementing Hybrid Technique	Hyderabad, 2024
2	S.Revathy Reg. No. 213033111003	An Enhanced Turmeric Cultivation and Disease Prediction through a Hybrid Optimization Neural Network	Dr.MGR University, Chennai, 2024
3	S.N.Sithi Shamila Reg. No.: 12474	Video retrieval using fisher vector and deep learning neural networks	M. S. University, Tirunelveli, 2023
4	V.Radha Mani Reg. No.:11738/B2/2017	A Novel Approach for Load Balancing in Cloud Computing Environment using RL-OPT-IRIAL	Bharathiar University, Coimbatore, 2022
5	B. Baron Sam Reg. No. 2015191101	Medical Image Restoration in MR/CT Images of Human Abdomen	Sathyabama University, Chennai, 2021
6	V.Poornachander Reg. No: 9007-17-893-008	Scalable, Opportunistic, Energy Efficient Routing (SOEER) - A Novel Clustering Approach	Osmania University, Hyderabad, 2023
7	R.Soundhara Raja Pandian Reg. No. 14144389772	Network Optimization and Security Enhancement for cloud based E-Learning Platforms	Anna University, Chennai, 2023
8	Shanid Malayil Reg. No. 1117908221	Amalgamation of Optimization Algorithms with Driven Deep Learning for Severity Level Classification of Lung Cancer and Survival Timeline Prediction of Lung Cancer.	Noorul Islam University, Nagercoil, 2023
9	V.Umadevi Reg. No. R20091196	Design and Analysis of Rake Receiver Algorithm for WCDMA	Alagappa University, Karaikudi, 2023
10	A.Pramila Reg. No. R20161783	Efficient Clinical Decision Support System for Diagnosis of Chronic Kidney Disease	Alagappa University, Karaikudi, 2022
11	L. JerlinRubini Reg. No.: R20091118	An Optimal Feature Selection and Intelligent Classification Methods for Chronic Kidney Disease Prediction	Alagappa University, Karaikudi, 2021
12	J.C.Smitha Reg. No. 1111908204	Investigations on Pathological Tissue Segmentation and Classification of MRI Brain Images using Artificial Neural Networks.	Noorul Islam University, Nagercoil, 2020
13	A.A.Haseena Thasneem Reg. No. 11593	Virtual Reality and 3D Reconstruction from 2D Medical Images.	M. S. University, Tirunelveli, 2020
14	M.Milton Joe Reg. No. 110319	Modelling a Novel Web VANET Architecture and Enhancing Security Algorithms through Social Network	M. S. University, Tirunelveli, 2018
15	K.Elampari Reg. No. 10600	A Study of Random Numbers Generated by QKD Protocol and some True Random Number Generators.	M. S. University, Tirunelveli, 2018
16	L.Godlin Atlas Reg. no. 11724	Detection of Retinal Haemorrhages in Fundus Images using ANFIS Classifiers and Various Segmentation Techniques	M. S. University, Tirunelveli, 2018
17	M.V.Ashok Reg. No. 3601	Advertising Scheduling using Educational Data Mining.	M. S. University, Tirunelveli, 2017
18	K.Shankar Reg. No. 0935	Secret Image Sharing Schemes with Encrypted Shadow Images using Elliptic Curve Cryptography.	Alagappa University, Karaikudi, 2017
19	R.Rajalakshmi	A Pose and Illumination Variation Using	Noorul Islam



	Reg. No.0110907202	Efficient Discriminant Component Analysis with Multi -Class Support Vector Machine in Face Recognition System	University, Nagercoil, 2016
20	V.Prema Reg. No.11JLDRCS018	Image Analysis and Processing Using Mathematical Morphological Operators and High Frequency Filter For Pipeline Crack Measurements.	Karpagam University, Coimbatore, 2015
21	M.Edwin Jayasingh Reg. No. 6062	Content Based Image Retrieval of Cervical Cytology Images for Computer Aided Diagnosis.	M. S. University, Tirunelveli, 2013
22	R.Gandhiraja Reg. No. 10110239	Quality of Service Enhanced Mobile Adhoc Networks	Sri JTT University, Rajasthan, 2012

## Data Set Collected and Published

1. Jerlin RL, **Eswaran P**, Soundarapandian P (2015) UCI Chronic Kidney Disease dataset. School of Information and Computer Sciences. University of California Irvine. CA. USA.  
[https://archive.ics.uci.edu/ml/datasets/Chronic\\_Kidney\\_Disease](https://archive.ics.uci.edu/ml/datasets/Chronic_Kidney_Disease).

## List of Research Articles / Recent Publications

### Publication in International Journal

S. No.	Authors/Title of the paper / Journal	Impact Factor
1	S. Patrick Nelson, R. Raja, <b>P. Eswaran</b> , J. Alzabut, G. Rajchakit, "Modeling the dynamics of Covid-19 in Japan: employing data-driven deep learning approach", Intl. Journal of Machine Learning and Cybernetics ( <b>Springer</b> ), Aug. 2024, ( <b>SCI Indexed</b> ) ( <b>WoS</b> )	<b>3.1</b>
2	E. Yang, K. Shankar, <b>Eswaran Perumal</b> and C. Seo, "Optimal Fuzzy Logic Enabled EEG Motor Imagery Classification for Brain Computer Interface", <b>IEEE Access</b> , vol. 12, pp. 46002-46011, April 2024, ( <b>SCI Indexed</b> )	<b>3.9</b>
3	Jerlin Rubini, <b>Eswaran Perumal</b> , "Oppositional firefly optimization based optimal feature selection in chronic kidney disease classification using deep neural network", Journal of Ambient Intelligence and Humanized Computing ( <b>Springer</b> ), 13:1799–1810, 2022. ( <b>SCI Indexed</b> )	<b>7.104</b>
4	K. Shankar, <b>Eswaran Perumal</b> , Mohamed Elhoseny, et al., "Synergic Deep Learning for Smart Health Diagnosis of COVID-19 for Connected Living and Smart Cities" <b>ACM Transactions on Internet Technology (TOIT)</b> , Volume 22, Issue 3, August 2022, Article No.: 61, pp 1–14 ( <b>SCI Indexed</b> )	<b>3.135</b>
5	K.Shankar, <b>Eswaran Perumal</b> , Tiwari, P. et al. "Deep learning and evolutionary intelligence with fusion-based feature extraction for detection of COVID-19 from chest X-ray images", Multimedia Systems ( <b>Springer</b> ), 28:1175–1187, 2022. ( <b>SCI Indexed</b> )	<b>1.935</b>
6	K. Shankar, <b>Eswaran Perumal</b> , V.G. Díaz et al., "An optimal cascaded recurrent neural network for intelligent COVID-19 detection using Chest X-ray images", Applied Soft Computing ( <b>Elsevier</b> ), vol. 113, Part A, December 2021, 107878 ( <b>SCI Indexed</b> )	<b>6.725</b>
7	K. Shankar, <b>Eswaran Perumal</b> , "Ant Colony Optimization based Optimal Steganography Technique for Secret Image Sharing Scheme", Advances in	<b>Scopus Indexed</b>

	Mathematics: Scientific Journal, vol. 10, no.1, pp. 453–461, January 2021, <b>(Scopus Indexed)</b>	
8	Shankar, K. and <b>Eswaran Perumal</b> , “Automated Detection and Classification of COVID-19 from Chest X-ray Images using Deep Learning”, Journal of Computational and Theoretical Nano Science ( <b>American Scientific Publishers</b> ),, vol. 17, no. 12, pp. 5457-5463 (7), December 2020. <b>(Scopus Indexed)</b>	<b>0.220</b>
9	E.Laxmi Lydia, G. Jose Moses, Vijayakumar Varadarajan, Fredi Nonyelu, Andino Maseleno, <b>Eswaran Perumal</b> , K. Shankar, “Clustering and Indexing of Multiple Documents using Feature Extraction Through Apache Hadoop on Big Data”, Malaysian Journal of Computer Science, Issue 1, pp., 108-123, November 2020. <b>(SCI Indexed)</b>	<b>1.043</b>
10	K. Shankar, <b>Eswaran Perumal</b> , Mohamed Elhoseny and Phong Thanh Nguyen, “An IoT-Cloud Based Intelligent Computer-Aided Diagnosis of Diabetic Retinopathy Stage Classification Using Deep Learning Approach”, Computers, Materials & Continua ( <b>Tech Science Press</b> ), vol.66, no.2, pp.1665-1680, November 2020. <b>(SCI Indexed)</b> .	<b>4.89</b>
11	K.Shankar, <b>Eswaran Perumal</b> , “A novel hand-crafted with deep learning features based fusion model for COVID-19 diagnosis and classification using chest X-ray images”, Complex & Intelligent System ( <b>Springer</b> ), No.7, pp. 1277–1293, November 2020. <b>(SCI Indexed )</b>	<b>3.791</b>
12	Jerlin Rubini Lambert and <b>Eswaran Perumal</b> , “Hybrid Kernel Support Vector Machine Classifier and Grey Wolf Optimization Algorithm Based Intelligent Classification Algorithm for Chronic Kidney Disease”, Journal of Medical Imaging and Health Informatics ( <b>American Scientific Publishers</b> ), vol. 10, no. 10, pp. 2297-2307, October 2020. <b>(SCI Indexed)</b>	<b>0.642</b>
13	Joshi, G.P.; <b>Eswaran Perumal</b> .; Shankar, K.; Tariq, U.; Ahmad, T.; Ibrahim, A., “Toward Blockchain-Enabled Privacy-Preserving Data Transmission in Cluster-Based Vehicular Networks”, Electronics ( <b>MDPI</b> ), August 2020, 9, 1358. <b>(SCI Indexed)</b>	<b>2.412</b>
14	Pramila Arulanthu and <b>Eswaran Perumal</b> , “An intelligent IoT with cloud centric medical decision support system for chronic kidney disease prediction”, International Journal of Imaging Systems and Technology ( <b>Wiley</b> ), March 2020; 1-13. <b>(SCI Indexed)</b> .	<b>1.952</b>
15	Jerlin Rubini Lambert and <b>Eswaran Perumal</b> , “Efficient Classification and Prediction of Chronic Kidney Disease by using Multi-Kernel Support Vector Machine and Fruit Fly Optimization Algorithm”, International Journal of Imaging Systems and Technology ( <b>Wiley</b> ), January 2020; 1-14. <b>(SCI Indexed)</b>	<b>1.952</b>
16	Pramila Arulanthu, <b>Eswaran Perumal</b> , “An Efficient Oppositional Crow Search Optimization-based Deep Neural Network Classifier for Chronic Kidney Disease Identification”, International Journal of Innovative Computing and Applications, vol. 12, no. 4, pp. 206-215, June 2021 <b>(Scopus Indexed)</b>	<b>Scopus Indexed</b>
17	Jerlin Rubini Lambert and <b>Eswaran Perumal</b> , “Optimal Feature Selection Methods for Chronic Kidney Disease Classification using Intelligent Optimization Algorithms”, Recent Advances in Computer Science and Communications (August 2020) 13: 1, <b>(Scopus Indexed)</b> .	<b>Scopus Indexed</b>
18	K.Shankar, <b>Eswaran Perumal</b> , Vidhyavathi,R.M, “Deep neural network with moth search optimization algorithm based detection and classification of diabetic retinopathy images”, SN Appl. Sci. ( <b>Springer</b> ), 2:748, Mar.2020, <b>(ESCI-WoS)</b> .	<b>ESCI</b>
19	Pramila Arulanthu and <b>Eswaran Perumal</b> , “Risk Factor Identification, Classification and Prediction Summary of Chronic Kidney Disease”, Recent Advances in Computer Science and Communications, January 2020, 13: 1. ISSN: Online: 2666-2566. <b>(Scopus Indexed)</b>	<b>Scopus Indexed</b>
	K.Shankar and <b>P.Eswaran</b> , “RGB Based Multiple Share Creation in Visual	<b>0.344</b>

20	Cryptography with Aid of Elliptic Curve Cryptography”, <b>IEEE Journal of China Communications</b> , Vol. 14, Issue 2, page(s): 118–130, February 2017. ( <b>SCI Indexed – IF: 0.344</b> ).	
21	K.Shankar and <b>P.Eswaran</b> , “RGB Based Secure Share Creation in Visual Cryptography Using Optimal Elliptic Curve Cryptography Technique”, <i>Journal of Circuits, Systems, and Computers</i> ( <b>World Scientific</b> ) Vol. 25, No. 11, November 2016. ( <b>SCI Indexed</b> ).	<b>0.250</b>
22	S. Anantha Babu, <b>P. Eswaran</b> and C. Senthil Kumar, “Lossless Compression Algorithm Using Improved RLC for Grayscale Image”, <i>Arabian Journal of Science and Engineering</i> ( <b>Springer</b> ), vol.41, page(s): 3061–3070, March 2016. ( <b>SCI Indexed</b>	<b>0.728</b>
23	Ambika, I. Sadasivam, V and <b>Eswaran, P.</b> “An Effective Queuing Architecture for Elastic and Inelastic Traffic with Different Dropping Precedence in MANET”, <i>EURASIP Journal on Wireless Communications and Networking</i> ( <b>Springer</b> ), vol.155, 2014. ( <b>SCI Indexed</b> ).	<b>0.627</b>
24	<b>Eswaran Perumal</b> et al., “Hi-Tech Authentication for Palette Images using Digital Signature and Data Hiding”, <i>International Arab Journal of Information Technology</i> , vol. 8, no. 2, page(s): 117–123, April 2011. ( <b>Scopus Indexed</b> ).	<b>0.344</b>
25	S.Poonkuntran, R.S.Rajesh and <b>P.Eswaran</b> , “Energy Aware Fuzzy Color Segmentation Algorithm–An application to criminal identification using mobile devices”, <i>International Journal of Wavelets and Multiresolution Information Processing</i> , ( <b>World Scientific</b> ), vol. 6, no. 5, page(s): 707–718, 2008. ( <b>SCI Indexed</b> ).	<b>0.500</b>

#### Publications – International Conference

1. **Eswaran Perumal**, P. Arulanthu, R. Ramachandran and R. Singh, “Enhanced Metaheuristics with Deep Learning Model for Blockchain Assisted Cyber Security Solution in Internet of Things Environment,” 2024 Second International Conference on Emerging Trends in Information Technology and Engineering (ICETITE), Vellore, India, pp. 1-7, February 2024, **IEEE Conference ID: 58242**, **Scopus Indexed**, DOI: [10.1109/ic-ETITE58242.2024.10493229](https://doi.org/10.1109/ic-ETITE58242.2024.10493229)
2. **Eswaran Perumal**, P. Arulanthu and K. Parasuraman, “Firefly Algorithm with Deep Belief Network for Crop Classification Model in Agricultural Sector,” 2024 Second International Conference on Emerging Trends in Information Technology and Engineering (ICETITE), Vellore, India, pp. 1-6, February 2024, **IEEE Conference ID: 58242**, **Scopus Indexed**, DOI: [10.1109/ic-ETITE58242.2024.10493598](https://doi.org/10.1109/ic-ETITE58242.2024.10493598)
3. Saravana Prabhu R., Prema A., **Eswaran Perumal**, “A Novel Cloud Security Enhancement Scheme to Defend against DDoS Attacks by using Deep Learning Strategy”, *Proceedings of 6<sup>th</sup> International Conference on Electronics, Communication and Aerospace Technology (ICECA 2022)*, pp. 679-686, December 2022, **IEEE Conference Record** ISBN: 978-16654-8271-4, (**Scopus Indexed**). DOI: [10.1109/ICECA55336.2022.10009177](https://doi.org/10.1109/ICECA55336.2022.10009177)
4. Jerlin Rubini Lambert; Pramila Arulanthu; **Eswaran Perumal**, “Identification of Nominal Attributes for Intelligent Classification of Chronic Kidney Disease using Optimization Algorithm”, *International Conference on Communication and Signal Processing (ICCSP)*, July 2020, pp. 0119-0125, **IEEE Conference Record**, ISBN: 978-1-7281-4988-2, (**Scopus Indexed**) DOI: [10.1109/ICCSP48568.2020.9182206](https://doi.org/10.1109/ICCSP48568.2020.9182206)
5. Pramila Arulanthu and **Eswaran Perumal**, “Predicting the Chronic Kidney Disease using Various Classifiers”, 4<sup>th</sup> IEEE International Conference on Electrical, Electronics, Communication, Computer Technologies and Optimization Techniques, pp. 70-75, December 2019, **IEEE Conference Record**, ISBN: 978-1-7281-3261-7, (**Scopus Indexed**) <https://doi.org/10.1109/ICEECCOT46775.2019.9114653>

6. Anantha Babu, S and **Eswaran Perumal**, “Efficient Approach of Run Length Coding Technique using Lossless Grayscale Image Compression (E-RLC)”, 3<sup>rd</sup> International Conference on Inventive Computation Technologies (ICICT), page(s): 534-539, November 2018, **IEEE Conference Record**, ISBN: 978-1-5386-4985-5, (**Scopus Indexed**) [DOI:10.1109/ICICT43934.2018.9034377](https://doi.org/10.1109/ICICT43934.2018.9034377)
7. **Eswaran Perumal** and Pramila Arulanthu, “Multilevel Morphological Fuzzy Edge detection for Color Images (MMFED)”, IEEE International Conference on Electrical, Electronics, Communication, Computer and Optimization Techniques”, pp. 269–273, December 2017. **IEEE Conference Record**, ISBN: 978-1-5386-2361-9, (**Scopus Indexed**) [DOI: 10.1109/ICEECCOT.2017.8284680](https://doi.org/10.1109/ICEECCOT.2017.8284680)
8. K.Shankar and **P.Eswaran**, “A New k out of n Secret Image Sharing Scheme in Visual Cryptography”, Proceedings of the 10<sup>th</sup> International Conference on Intelligent Systems and Control (ISCO 2016), page(s): 369-374, January 2016. **IEEE Conference Record**, **Scopus Indexed**, ISBN: 978-1-4673-7807-9. [DOI: 10.1109/ISCO.2016.7726969](https://doi.org/10.1109/ISCO.2016.7726969)
9. K.Shankar and **P.Eswaran**, “Sharing a Secret Image with Encapsulated Shares in Visual Cryptography”, Procedia Computer Science, Elsevier, Vol. 70, pp. 462-468, 2015. <https://doi.org/10.1016/j.procs.2015.10.080>
10. **Eswaran Perumal** et al., “Fuzzy – PL Transformation based Color Edge Detection” Proceedings of the 16<sup>th</sup> International Conference on Advanced Computing and Communication (ADCOM 2008), page(s): 9–12, December 2008, (**Indexed by IEEE**). ISBN: 978-1-4244-2963-9, (**Scopus Indexed**), [DOI: 10.1109/ADCOM.2008.4760420](https://doi.org/10.1109/ADCOM.2008.4760420)
11. S.Poonkuntran, R.S.Rajesh, **Eswaran Perumal**, “A Reversible Watermarking with Low Warping: An Application to Digital Fundus Image”, Proceedings of the IEEE International Conference on Computer and Communication Engineering (ICCCE '08), page(s): 472–477, May 2008, **IEEE Conference Record**, ISBN: 978-1-4244-1691-2, (**Scopus Indexed**), [DOI:10.1109/ICCCE.2008.4580649](https://doi.org/10.1109/ICCCE.2008.4580649)

## PUBLICATION – BOOKS

1. K.Shankar, **Eswaran Perumal**, Deepak Gupta, “Artificial Intelligence for the Internet of Health Things”, CRC Press, Taylor and Francis Group, May 2021. ISBN: 978-0-367-74497-7, <https://www.routledge.com/Artificial-Intelligence-for-the-Internet-of-Health-Things/Shankar-Perumal-Gupta/p/book/9780367744977>
2. **Eswaran Perumal**, “Advanced Data Base Management System”, 1<sup>st</sup> Edition, Chandru Publishers, 2020, ISBN: 978-81-945191-02.
3. M.Sarulatha & **P.Eswaran**, “Machine Learning Algorithms and Tools”, 1<sup>st</sup> Edition, Ryan Publishers, 2023, ISBN: 978-81-19587-73-5.

## PUBLICATIONS – BOOK CHAPTERS

1. Raj, T.F.M., Vallathan, G., **Eswaran Perumal**, Sudhakar, P., A., J. (2024). Future and Research Perspectives of Spatiotemporal Data Management Methods. In: A, J., Abimannan, S., El-Alfy, ES.M, Chang, YS. (eds) Spatiotemporal Data Analytics and Modeling. Big Data Management. **Springer**, Singapore. (**Scopus Indexed**), ISBN: 978-981-99-9651-3 [https://doi.org/10.1007/978-981-99-9651-3\\_12](https://doi.org/10.1007/978-981-99-9651-3_12)
2. V.Umadevi & **P.Eswaran**, “Revolutionizing Agriculture: The Integration of IoT in Smart Farming”, Convergence of Business and Technology, pp. 305-317, Beyond Line Publisher, December 2023, ISBN: 978-93-95659-55-0. <https://play.google.com/books/reader?id=LbLoEAAAQBAJ&pg=GBS.PA10&hl=en>

3. Denis A. Pustokhin, Irina V. Pustokhina, **Eswaran Perumal**, K. Shankar, “Intelligent Robots in the Disease Recovery Process using a Whale Optimization-Based Feature Selection and Classification Model”, Robotic Technologies in Biomedical and Healthcare Engineering, June 2021, (**Taylor & Francis – Scopus Indexed**) ISBN: 9781003112273, DOI <https://doi.org/10.1201/9781003112273>
4. Andino Maselena, Wahidah Hashim, **Eswaran Perumal**, M. Ilayaraja, and K. Shankar, “Access control and classifier-based blockchain technology in e-healthcare applications”, Intelligent Data Security Solutions for e-Health Applications, pp. 151-167, Aug. 2020, (**Elsevier – Scopus Indexed**), ISBN: 978-0-12-819511-6, <https://doi.org/10.1016/B978-0-12-819511-6.00008-X>
5. K. Shankar, Mohamed Elhoseny, **Eswaran Perumal**, M. Ilayaraja, K. Sathesh Kumar, “An Efficient Image Encryption Scheme based on Signcryption Technique with Adaptive Elephant Herding Optimization”, Cyber security and Secure Information Systems, Advanced Sciences and Technologies for Security Applications, pp. 31-42, June 2019, (**Springer – Scopus Indexed**), ISBN: 978-3-030-16837-7, [https://doi.org/10.1007/978-3-030-16837-7\\_3](https://doi.org/10.1007/978-3-030-16837-7_3)
6. P. Manickam, K. Shankar, **Eswaran Perumal**, M. Ilayaraja, K. Sathesh Kumar., “Secure Data Transmission Through Reliable Vehicles in VANET using Optimal Lightweight Cryptography”, Cybersecurity and Secure Information Systems, Advanced Sciences and Technologies for Security Applications, pp. 193-204, June 2019. (**Springer – Scopus Indexed**), ISBN: 978-3-030-16837-7, [https://doi.org/10.1007/978-3-030-16837-7\\_9](https://doi.org/10.1007/978-3-030-16837-7_9)
7. K.Shankar, M.Ilayaraja, K. Sathesh Kumar, **Eswaran Perumal**, “Mobility and QoS Analysis in VANET using NMP with Salp Optimization Models”, Emerging Technologies for Connected Internet of Vehicles and Intelligent Transportation System Networks. Studies in Systems, Decision and Control, vol. 242, pp. 15-26, July 2019, (**Springer – Scopus Indexed**) ISBN: 978-3-030-22773-9, [https://doi.org/10.1007/978-3-030-22773-9\\_2](https://doi.org/10.1007/978-3-030-22773-9_2)
8. Karthika Velu, Pramila Arulanthu, **Eswaran Perumal**, “Energy Reduction Stratagem in Smart Homes using Association Rule Mining”, Innovative Data Communication Technologies and Application, Lecture Notes on Data Engineering and Communications Technologies, vol. 46. pp. 188-193, January 2020, (**Springer – Scopus Indexed**), ISBN: 978-3-030-38040-3, [https://doi.org/10.1007/978-3-030-38040-3\\_22](https://doi.org/10.1007/978-3-030-38040-3_22)
9. K.Shankar, **Eswaran Perumal**., “An Efficient Image Encryption Technique based on Optimized Key Generation in ECC using Genetic Algorithm”, Artificial Intelligence and Evolutionary Computations in Engineering Systems. Advances in Intelligent Systems and Computing, vol. 394, pp. 705-714, February 2016, (**Springer – Scopus Indexed**), ISBN: 978-81-322-2656-7, [https://doi.org/10.1007/978-81-322-2656-7\\_64](https://doi.org/10.1007/978-81-322-2656-7_64)

## Resource Person in Various Capacities

### Guest Lecture/ Invited Talk/ Special Lecture Presented: 12

Sl. No.	Role	Title of the Lecture	Name of the Event	Name of the Institution	Date
1	<b>Invited Lecture</b>	Information Technology Development for Smart Environment	Faculty Induction Programme, batch XVI,	UGC – Human Resource Development Centre, University of Madras, Chennai	17.12.2024
2	<b>Guest Lecture</b>	Development of Research Tools	National Level Workshop organized by the	Dept. of Education (DDE), Alagappa University, Karaikudi	30 & 31.08.2016

3	<b>Invited Talk</b>	Recent Trends and Developments in Communication	Intercollegiate Meet (Mirror 17)	PG Research Dept. of Computer Science, Erode Arts & Science College, Erode	09.09.2017
4	<b>Invited Talk</b>	Recent Trends in Information Technology	Technical Symposium	Sri Raaja Rajan College of Engineering and Technology, Karaikudi	08.08.2019
5	<b>Invited Talk</b>	Video Image Processing	National Level Technical Symposium	Dept. of Software Engineering, Noorul Islam University, Nagercoil	21.10.2019
6	<b>Special Lecture</b>	Modern Communication Technology and its Developments using IoT	Webinar Lecture Series	Dept. of Computer Applications, Alagappa University, Karaikudi	29.05.2020.
7	<b>Guest Lecture</b>	Modern Technology Integration for Smart Environment	Webinar Lecture Series	Dept. of Comp. Applications, Excel College for Commerce Sci., Komarapalayam, Namakkal	21.11.2020
8	<b>Invited Talk</b>	Opportunities and Challenges in IoT	Webinar Lecture Series	Department of Computer Science, J.J. College of Arts and Science, Pudukkottai	16.07.2021
9	<b>Special Lecture</b>	The Development of Social Media and its Impact in Society	Seven-Day NSS Special Camp	National Service Scheme, Alagappa University, Karaikudi	01.04.2022

### Interdisciplinary Lecture Presented

Sl. No.	Role	Title of the Lecture	Name of the Event	Name of the Institution	Date
1	<b>Interdisciplinary Special Lecture</b>	Youth Welfare and Role of the Society	in NSS Special Camp	National Service Scheme, Alagappa University, Karaikudi	23.03.2019.

### Resource Person

Sl. No.	Role	Title of the Lecture	Name of the Event	Name of the Institution	Date
1	<b>Resource Person</b>	Participants Seminar Session	Refresher Course in Computer Science & Applications	UGC-HRDC, Bharathidasan University, Tiruchirappalli	28.09.2021 (Forenoon Session).
2	<b>Keynote Speaker</b>	Keynote Address	International Conference on Innovation in Interdisciplinary Research - 2020	Kalasalingam Academy of Research & Education, Krishnankoil	<b>23, 24.06.2020</b>