

PROFILE OF Dr. P. KALAVATHI

- (i) Designation : PROFESSOR
- (ii) Qualification : M.C.A., M.Phil., Ph.D.,
- (iii) Additional Qualification : UGC-NET (December 2000)
- (iv) Experience : 20 years in Teaching
8 years in Research
- (v) Specialization : Digital Image Processing
Medical Image Segmentation and Analysis
Internet of Things
- (vi) Email ID : pkalavathi.gri@gmail.com
- (vii) Mobile : 9445898371
- (viii) Research Guidance



Degree	Awarded	Guiding
M.Phil	19	-
Ph. D	3	4

- (ix) Publications

S. No.	Category	Total
1.	Books	4
2.	Chapter in Books	8
3.	No. of Publications in National Journals and Proceedings	26
4.	No. of Publications in International Journals and Proceedings	47

Selected list of Publications:

S. No	Title of the Article	Name of the Journal	I/N	ISBN/ISSN	Vol.	Pages	Year
1	Computational 2D and 3D Medical Image Data Compression Models - a Review	Archives of Computational Methods in Engineering, Springer	I	11343060, 18861784	-	1-33	2021
2	On a Hybrid Lossless Compression Technique for Three Dimensional Medical Images	Journal of Applied Clinical Medical Physics	I	1526-9914	22(8)	191-203	2021
3	Brain Tissue Volume Estimation to Detect Alzheimer's Disease in Magnetic Resonance Images	Soft Computing, Springer	I	1433-7479	25	10007-10017	2021
4	A Near Lossless Three-Dimensional Medical Image Compression Technique using 3D-Discrete Wavelet Transform	International Journal of Biomedical Engineering and Technology	I	1752-6426	35(3)	1-12	2021

5	Brain Tissue Segmentation in MRI Brain Images Using Histogram Based Swarm Optimization Techniques	Current Medical Imaging	I	1875-6603	16(6)	752-765	2020
6	Segmentation of Brain from MRI Head Images using Modified Chan-Vase Active Contour Model	International Arab Journal of Information Technology	I	1683-3198	13(6A)	858-866	2019
7	Methods on Skull Stripping of MRI Head Scan Images – a Review	Journal of Digital Imaging, Springer	I	0897-1889 1618-727X	29(3)	365-379	2016
8	Automatic Segmentation of Cerebral Hemispheres in MR Human Head Scans	International Journal of Imaging Systems and Technology - Neuroimaging and Brain Mapping	I	1098-1098	26	15-23	2016
9	Brain Segmentation in Magnetic Resonance Human Head Scans Using Multi-Seeded Region Growing	Imaging Science Journal	I	2229-791X	62(5)	273-284	2014
10	Contour Based Brain Segmentation Method for Magnetic Resonance Imaging Human Head Scans	Journal of Computer Assisted Tomography	I	1532-3145	37(3)	353-368	2013

(x) Sponsored Project(s)

Major Projects handled so far		Major Projects handled during 2015 - 2021	
Nos.	Financial Outlay	Nos.	Financial Outlay
2	Rs. 38.45 lakhs	2	Rs. 38.45 lakhs

(xi) Details of Projects

S.No.	Title of the Project	Funding Agency	Duration	Total Amount in lakhs
1.	Development of Computational Methods for Automatic Detection and Classification of Alzheimer's Disease	DST-SERB	2017-2021	22.02
2	Development of Wavelet based Near-Lossless 3D Medical Image Compression Technique for Telemedicine Service	CSIR	2019-2022	16.43

- (xii) Seminars/Conferences/Workshops organized : 7 Nos.
- (xiii) Seminars/Conferences/Workshops attended : 38 Nos.
- (xiv) Invited Talk/Resource Person/Chairmanship : 43 Nos.
- (xv) Extension Activities through NSS and VPP : 428 Nos.
- (xvi) Honors and Awards : 5 Nos.
- (xvii) Visits abroad : Sri Lanka

(xviii) Major Corporate Responsibilities

- **Head of the Department**, DCSA, GRI from 23.03.2017 to 22.03.2020.
- **University Programme Coordinator**, National Service Scheme, GRI from 03.09.2015 to 01.07.2018.
- **Coordinator, Red Ribbon Club**, GRI from 03.09.2015 to 01.07.2018.
- **Chief Superintendent** for University Examination, GRI, November 2016.
- **Deputy Chief Superintendent** for University Examination, GRI, April 2004 & April 2016.
- **Chief Superintendent** for University Examination (DCSA), GRI, April 2017 & December 2017.
- **Chief Superintendent** for ESE Valuation (DCSA), GRI, April & Nov. 2017, April & Nov. 2018 and April & Nov. 2019.
- **Subject Coordinator**, UGC-NET Coaching in Computer Science, DCSA. GRI.
- **Department Library In-charge**, DCSA, GRI from Dec. 2001 to Nov. 2005.
- **Programme Officer**, National Service Scheme, GRI from 01.10.2003 to 20.01.2009.

(xix) Additional Responsibilities and Membership in Academic Bodies and Committees

- **Member, Planning and Monitoring Board**, GRI (5.12.2019 to 22.03.2020) & (01.07.2020 to 05.07.2021).
- **Member, Board of Management**, GRI (01.07.2021 to 05.07.2021).
- **Member, Academic Council**, GRI (May 2012 to April 2014), (April 2017 to 22.03.2021) & (01.07.2021 to 05.07.2021).
- **Member, Academic Committee**, MTWU, Kodaikanal, from Mar. 2017 to Mar. 2020.
- **Chair Person, BoS**, DCSA, GRI from April 2017 to March 2020.
- **Member, BoS**, DCSA, GRI since 2005.
- **Special invitee, BoS** in various Depts., GRI from April 2017 to March 2020.
- **Member, Publication Committee**, GRI, from 2015 to till date.
- **Member, Sports and Tournaments, Library Committee, Calendar Committee**, GRI (2015 to 2018).
- **Member, District Level Youth Award Selection Committee**, NYK, Dindigul (03.09.2015 to 01.07.2018).
- **Member, Local Management Committee**, Working Women's Hostel, GRI (2017-2020).
- **Member, Advisory Committee, HEPSN, Cell for Culture and Arts, Shanti Sena, Student Cultural Activities, Gurukula Systems, Students Grievance Redressal Committee**, GRI (03.09.2015 to 01.07.2018).
- **Convener, NSS Gold Medal Selection**, GRI (03.09.2015 to 01.07.2018).
- **Served in BoS, Staff Selection, Resource Person, Expert, Doctoral Committee Member, Examiner and Question Paper Setter** in various Universities and Colleges.