BIODATA

Dr. BASAVANNA M

M.Sc.,M.Phil.,P.hD Associate Professor DOS in Computer Science Davangere University Davangere-577 007



Areas of Specialization : Digital Image Processing, Pattern Recognition

Scene text analysis and AI.

E mail : <u>basavanna m@yahoo.com</u>

Basavanna.m@davangereuniversity.ac.in

Contact Number :+91 94485 36782

Vision

To obtain a challenging position incorporating my knowledge and skills in the field of Computer Science and problem solving experience. Involving in Research activities.

Professional Experience

A senior academician having 22 years of teaching experience in Computer Science related areas.

Educational Qualifications					
Sl. No.	No. Degree Specialization/ Subjects		University	Year of Award/ Passing	
1	B.Sc	Computer Science	Mysore University	1996	
2	M.Sc	Computer Science	Mysore University	1999	
3	M.Phil	Computer Science	Alagappa University, Karaikudi, TN	2007	
4	P.HD	Computer Science	VELS University, Chennai, TN	2013	

Profes	Professional Details (Academic/Research Experience)					
Sl. No.	Designation	Institution/University	UG/PG	From	То	
1	Lecturer	Vidyavardhake First Grade College, Mysore.	UG	1999	2001	
2	Lecturer	Sarada Vilas First Grade College, Mysore.	UG	2001	2002	
3	Faculty	Yuvaraja's College University ,of Mysore, Mysore	UG	2003	2009	
4	Assistant Professor	Government of Karnataka, Department of Collegiate Education, Government College (Autonomous), Mandya.	UG and PG	2009	2019	
5	Associate Professor	Department of Studies in Computer Science, Davangere University, Shivagangotri, Davangere	PG	2019	Till date	

Are	Areas of Research Interest:		
1.	Digital Image Processing		
2.	Pattern Recognition		
3.	Scene text analysis, Video processing, AI		

Aca	Academic/Administrative responsibilities:				
1.	AC Member at Government College (Autonomous), Mandya from 2013- 2019				
2.	BOS Member at Government College (Autonomous), Mandya from 2013- 2019, Yuvaraja's College (Autonomous), Mysore, St' Philomenous College (Autonomous), Mysore				
3.	BOE Chairman and member Government College (Autonomous), Mandya,KSOU, Mysore, JSS College (Autonomous), Ooty Rd, Mysore, Yuvaraja's College (Autonomous), Mysore, St' Philomenous College (Autonomous), Mysore				
4.	Reviewer/Editor for different Journal from 2013				
5.	Worked as Head of the department and Coordinator PG Department of Computer Science at Government College (Autonomous), Mandya from 2013 to 2019				
6.	UGC sponsored Carrier Oriented Programming (COP), Certified Course coordinator from 2013-2015.				
7.	Controller of Examinations (Government College (Autonomous), Mandya from 2013-2016.				

_		DAVANGERE ONIVERSITI, DAVANGERE
	8.	Chairman, Department of Studies in Computer Science, Davangere University, Davangere From Dec 2019 to present
	9.	Chairman, ICT, Davangere University, Davangere
	10.	BOS, BOE Chairman (UG, and PG) for the Academic Year 2020-2021

Awards:

Best Research Publication Award-2020 at Teachers Day Celebration-2020, Organized by Davangere University, Davangere

UGC	UGC Research Projects:					
Sl. No.	Title of the Project	Funding Agency	Project Budget	Period	Status	
1.	"Scene Text Detection: Application to Blind Person"	UGC	1,30,000/-	2010- 2013	Completed	
2.	"Tumor Cell Identification in Medical Images"	UGC	3,50,000/-	2014- 2017	Completed	

Pate	Patents:					
Sl. No.	Title of the Patents	Patent number	IPR	Year	Status	
1.	"A Novel Deep Convolution Neural Network for Tattoo Text Detection in Images"	2021104831	Australian Govt., Intellectual Property Australia	2021	Applied	
2.	"A Novel Method for Writer Age Estimation Using Handwritten Analysis"	2021104210	Australian Govt., Intellectual Property Australia	2021	Applied	

Book Published / Book Chapters Published:				
	Publisher: IK International Publishing House Pvt. Ltd., New Delhi,			
	Website: ww.ikbooks.com			
1.	Title: "System Analysis and Design: Technology and Applications"			
1.	ISBN No : 9789385909078			
	Year: 2016			
	Pages: 296			
	Publisher: Shorff Publishers and Distributers Pvt. Ltd., Navi Mumbai			
	www.shroffpublishers.com			
2.	Title: "Web Programming for Beginners"			
۷.	ISBN No : 9789352133635			
	Year: 2016			
	Pages: 299			
	Publisher: LAP LAMBERT, Academic Publishing, International Book Market Service Ltd.			
	OmniScriptum Publishing Group, 17, Meldrum Street, Beau Bassin 71504, Mauritius.			
3.	Title: "Scene Text Detection and Recognition: An Image Processing Approach"			
J .	ISBN No : 978-613-9-96378-2			
	Year: 2018			
	Pages: 151			
	Publisher: LAP LAMBERT, Academic Publishing, International Book Market Service Ltd.			
	Title: The World of Big			
4.	ISBN No: 9786203863710			
	Year: 2021			
	Pages: 170, Edition: 1.			

Research Publications:

Journal Publications

- M. Basavanna, P. Shivakumara, S. K. Srivatsa and G. Hemantha Kumar, "Angle-Proximity based Text Block Verification Method for Text Detection in Scene Images", International Journal of Machine Intelligence (IJMI), 2011, pp 245-250.
- 2. **M. Basavanna**, G. Shivanand, P. Shivakumara and S. K. Srivatsa, "Automatic non-horizontal scene text recognition from document image", International Journal of Machine Intelligence (IJMI), 2011, pp 164-167.
- 3. **M. Basavanna**, P. Shivakumara, S. K. Srivatsa and G. Hemantha Kumar, "Multi-oriented Text Detection in Scene Images". International Journal of Pattern Recognition and Artificial Intelligence (IJPRAI), World Scientific, 2012, pp.1255010-1-19.
- 4. Anil Kumar R J, Lalitarangarajan, Shivanand Gornale, **Basavanna M**, "Image Detection in digital documents by using Digital Image Processing Approach", JSSCM Journal, JSSCACS, Vol 3, Issue 1, May-2014 Mysore. pp-16-23.

- A. C. Nuthan, M. S. Naveen Kumar, Shivanand S. Gornale, M. Basavanna, "Development of Randomized Hybrid Cryptosystem Using Public and Private Keys", Emerging Research in Electronics, Computer Science and Technology, Lecture Notes in Electrical Engineering Volume 248, 2014, pp 919-926.
- 6. **Basavanna M**, S. S. Gornale, "Skew Detection and Skew Correction in scanned Document Image using Principal Component Analysis", International Journal of Scientific & Engineering Research(IJSER), Volume 6, Issue 1, January-2015, ISSN 2229-5518, PP 1414-1417.
- 7. S. S. Gornale, **Basavanna M**, and Kruthi R, "Fingerprint Based Gender Classification Using Minutiae Extraction", International Journal of Advanced Research in Computer Science(IJARCS), Volume 6, No. 1, Jan-Feb 2015, ISSN No. 0976-5697, PP 72-77.
- 8. S. S. Gornale, **Basavanna M** and Kruthi R, "Gender Classification Using Fingerprints Based On Support Vector Machines (SVM) With 10-Cross Validation Technique", International Journal of Scientific & Engineering Research, Volume 6, Issue 7, July-2015, ISSN 2229-5518, pp-588-593.
- 9. **Basavanna M**, and S. S. Gornale, "Identification and Classification of Flowers Images using Colour models", International Journal of Advanced Research in Computer Science and Software Engineering, Volume 5, Issue 6, June 2015 ISSN: 2277-128X, pp-1003,1007.
- **10. M. Basavanna**, P. Shivakumara, S. K. Srivatsa and G. Hemantha Kumar, "Adaptive Histogram Analysis for Scene Text Binarization and Recognition", Malaysian Journal of Computer Science (MJCS), Vol. 29(2), 2016, PP-74-85.
- 11. T. N. Govindiah, B.N. Ramakrishna, and **Basavanna M**, "Studies on Molecular Interactions of Liquid Crystalline Materials using Thermodynamic and Ultrasonic Technique", International Journal of Advanced Research (IJAR), Vol. 4(11), 2016,pp-425-431.
- 12. **Basavanna M**, Shivanand S. Gornale, T. N. Govindaiah, "Tumor Cell Identification in Medical Images Using Image Processing Techniques", GLOBAL JOURNAL OF ADVANCED ENGINEERING TECHNOLOGIES AND SCIENCES (GJAETS), 3(10), October, 2016, pp-13-17.
- 13. S. S. Gornale, **Basavanna M**, and Kruthi R, "Fingerprint Based Gender Classification Using local binary pattern", International Journal of Computational Intelligence Research (IJCIR), Volume 13, No 2, 2016, pp-261-271.
- 14. T. N. Govindiah, M.T. Shivasagar, B.N. Ramakrishna, and **Basavanna M**, "Optical and Electrical Conductivity measurement of Reentrant Smectic Phases of in ternary mixture of Liquid crystalline materials", International Journal of Current Advanced Research, ISSN:0:2319-6475, Volume 6; Issue 3, March 2017, pp-2559-2563.

- 15. **Basavanna M**, Prem Singh M and Chandraiah T, "Detection of the Tumor cell in CT Images", International Journal of Emerging Trends & Technology in Computer Science (IJETTCS), Volume 6, Issue 4, July-August 2017, pp-28-32.
- 16. Zhen Wang, Palaiahnakote Shivakumara, Tong Lu*, **Mahadevappa Basavanna**, Umapada Pal, Michael Blumenstein. "Fourier-residual for printer identification". *The 14th International Conference on Document Analysis and Recognition* (ICDAR-2017), IEEE, Kyoto, Japan, Nov 9-15, 2017, pp-1114-1119.
- 17. **Basavanna M**, Prem Singh M, Chandraiah T, Prakash raje urs M, "Signature Verification Using PCA and Geometric Functions", International Journal of Latest Trends in Engineering and Technology (IJLTET-Jan-2018), Vol.(9) Issue (3), pp-057-062.
- 18. S. S. Gornale, **Basavanna M**, and Kruthi R, "Comparative Analysis of Classifiers for Gender Identification Using Fingerprints", International Journal of innovative Research in Science, Engineering and Technology(IJIRSET), Vol. 7, Issue 6, June 2018, pp-6937-6944.
- 19. **Basavanna M**, Prem Singh M, Prakash Raje Urs M, Chandraiah T, "Recognition of Geometrical Shapes Using Inclination and Statistical Features", International Journal of New Innovations in Engineering and Technology, Volume 12, Issue 4, January-2020, ISSN: 2319-6319, Page No. 021-026. Impact factor 4.012
- 20. **Basavanna M**, Prem Singh M, Balakrishna M, "Augmented Shopping Application based on the User Location", International Journal of New Innovations in Engineering and Technology, Volume 15 Issue 2, ISSN: 2319-6319, November 2020, Page No. 16-22.
- 21. S. B. Mallikarjuna, Palaiahnakote Shivakumara, Vijeta Khare, N. VinayKumar, **M.Basavana**, Umapada Pal and B.Poornima, "CNN Based Method for Multi-Type Diseased Arecanut Image Classification", Malaysian Journal of Computer Science (MJCS), Vol. 34(3),2021,ISSN: 0127-9084, pp 255-265.
- 22. S. B. Mallikarjuna, Palaiahnakote Shivakumara, Vijeta Khare, **M. Basavanna**, Umapada Pal and B. Poornima, "Multi-Gradient-Direction based Deep Learning Model for Arecanut Disease Identification", CAAI Transactions on Intelligence Technology, (Accepted)

Conference Publications

- 1. **M. Basavanna**, P. Shivakumara, S. K. Srivatsa, and G. Hemantha Kumar, "A New Run-length based Method for Scene Text Detection", In Proc. IICAI, 2011, pp 1730-1736.
- 2. Sachith B K, Shivakumara P, **Basavanna M**, Roopa C K, "Sharpness based Method for Lung Cancer Cell Identification", Eighth International Conference on Image and Signal Processing (ICISP-2014), The Society of Information Processing, (SIP), Bangalore, pp 7-12.

- Lakshmikanth V and , Basavanna M, "A study on business related data analysis using data mining approach", One day National level Multidisciplinary conference- Emerging Trends in Digital Transformation, ETDT-2018, 30th July 2018, Government College for Women, Maddur, ISBN: 978-81-933447-3-6, pp-21-27.
- 4. Chandrakant Naikodi, Dr. Basavanna M, Anusurya, Shobha RT, Lakshmidevi CR, Devaraj HS, "A Research on Possible Misuse of Digitally Converted Handwritten Text and Recognition System", Easton 100, 5th International Conference on Computing Sciences, PROCEEDINGS CEUR-WORKSHOP PROCEEDINGS INDEXED BY SCOPUS, DBLP (CiteScore 0.6 as on 2019, SJR 0.177 as on 2019, SNIP 0.293 as on 2019), ISSN:1613-0073, https://www.scopus.com/sourceid/21100218356?origin=recordpage#tabs=0, April-May 2021.

Papers Presented

- 1. **M. Basavanna**, P. Shivakumara, S. K. Srivatsa and G. Hemantha Kumar, "Angle-Proximity based Text Block Verification Method for Text Detection in Scene Images", International Journal of Machine Intelligence (IJMI), 2011, pp 245-250.
- 2. **M. Basavanna**, G. Shivanand, P. Shivakumara and S. K. Srivatsa, "Automatic non-horizontal scene text recognition from document image", International Journal of Machine Intelligence (IJMI), 2011, pp 164-167.
- 3. **M. Basavanna**, P. Shivakumara, S. K. Srivatsa, and G. Hemantha Kumar, "A New Run-length based Method for Scene Text Detection", In Proc. IICAI, 2011, pp 1730-1736.
- 4. Sachith B K, Shivakumara P, **Basavanna M,** Roopa C K, "Sharpness based Method for Lung Cancer Cell Identification", Eighth International Conference on Image and Signal Processing (ICISP-2014), The Society of Information Processing, (SIP), Bangalore, pp 7-12.
- Lakshmikanth V and , Basavanna M, "A study on business related data analysis using data mining approach", One day National level Multidisciplinary conference- Emerging Trends in Digital Transformation, ETDT-2018, 30th July 2018, Government College for Women, Maddur, ISBN: 978-81-933447-3-6, pp-21-27.

Conference/Workshops/Trainings attended/organized:

International/National Conferences:

- 1. UGC sponsored one day state level seminar on Digital image processing and Pattern Recognition (DIPPR-2010).
- 2. UGC sponsored three days National level seminar on Digital image processing and Pattern Recognition (DIPPR-2011)-Nov-2011.
- 3. One day State level Tech Workshop on "Machine Learning", 9th Feb-2019.
- 4. 107th Indian Science Congress Conference held at University of Agricultural Sciences, GKVK Campus, Bangalore, Karnataka from 3-7th January, 2020.

Training Programme:

- 1. Short-Term Training Programme on Knowledge Discovery in Data Bases: Data Information & Knowledge (DInK'10) organized by the Center for Soft Computing Research (CSSR) of Indian Statistical Institute at Kolkata during Jan 11-15, 2010.
- 2. Orientation Programme in IT Oriented for College teachers conducted by the Academic Staff College, University of Kerala sponsored by the UGC from 13-07-2011 to 09-08-2011.
- 3. Teacher Empowerment Training for Government College Assistant Professor conducted by Karnataka Jnana Ayoga and Department of Collegiate Education, Government of Karnataka from 09-09-2011 to 15-09-2011.
- 4. Refresher Course in Mathematical Science (Computer Science) for College teachers conducted by the Academic Staff College, University of Mysore sponsored by the UGC from 04-12-2013to 24-12-2013.
- 5. Resource person talk on "Scene Text Detection and Recognition", in One day UGC Sponsored State Level Seminar on "Emerging trends in Computer Technology" in collaboration with Arena Animation on 29th December 2013 at JSS college for women's, Mysore.
- 6. Refresher Course in Mathematical Science (Computer Science) for College teachers conducted by the UGC, Human Resource Development Centre, University of Mysore, Mysore- from 15-02-2016to 06-03-2016.
- 7. One week Faculty Development Program on "Blockchain Technology & Cloud Computing using Amazon Web Service", 21st-to 25th January-2019, Organized by PES College of Engineering, Mandya, Sponsored by TEQIP Cell.
- 8. One Week Short Term Course on "Disaster Management", from 12th to 18th Feb-2019, Organized by the UGC-HRDC, University of Mysore, Manasagangotri, Mysore.
- 9. Faculty Development Program-2020, organized by Davangere University, Davangere, from 6th January to 13th January 2020.

Personal Detai	Personal Details				
Name	Dr. Basavanna M				
Address	Department of Studies in Computer Scient	,			
	Davangere University, Shivagangotri, D	Oavangere-577 007			
Date of Birth	28/08/1973				
Institution's Address	Davangere University, Shivagangotri, Davangere-577 007				
	Address for Communication	Permanent address			
Contact details	DOS in Computer Science, Davangere University, Shivagangotri, Davangere-577007	#304, HPO and RMS Layout, Shakthi Nagar, Mysore-29			
Electronic address	hasayanna m@dayangereyiniyersity ac in				
	Website: http://davangereuniversity.ac.in/computer-science-faculty/ Google Scholar Link: https://scholar.google.co.in/citations?user=mhF47YIAAAAJ&hl=en Research Gate Link: https://www.researchgate.net/profile/M_Basavanna				

(Dr. Basavanna M