




H.K.E Society's

Poojya Doddappa Appa College of Engineering, Kalaburgi

FACULTY PROFILE FORMAT

Personal Details	
Name: DR SUVARNA NANDYAL	
Designation: Professor	
Department: Computer Science & Engineering	
CollegeAddress: Aiwan E Shahi Road, Kalaburagi	
Contact: 9449618903	
E-mail id(college mail id): suvarnanandyal@pdaengg.com	

Areas of Interest	Image Processing, Video and sound Processing, NLP, Information retrieval, mobile applications and cloud computing.
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Subjects Taught	
UG	PG
1. Programming in C lab	1. Cloud Computing
2. Artificial Intelligence and Machine Learning	2. Deep Learning
3. Python Programming	3. Managing Big Data
4. Java Programming	4. IoT
5. Building Enterprise Application	
6. Object Oriented Programming	
7. Operating Systems	

Academic Background				
Degree	Specialization	Name of the Institute	University	Month and Year of Passing
Ph. D.	Computer Science & Engg	Jawaharlal Nehru Technological University, Hyderabad	JNTU, Hyderabad	October 2013
M.Tech (CSE)	Computer Science & Engg	Visvesvaraya Technological University, Belgaum	VTU, Belagavi	2003
B.E. (CSE)	Computer Science & Engg	P.D.A Engg. College Gulbarga Gulbarga University, Gulbarga	VTU, Belagavi	Aug 1993

Work Experience							
Name of the Institution		Position		From		To	
Government Polytechnic College, Gulbarga		Lecturer (Part-Time)		1994		December 1995.	
N. V. Polytechnic, Gulbarga,		Lecturer		August 1994		25-05-1996.	
Poojya Doddapa Appa Engineering College, Gulbarga		Lecturer		27 05-1996		26-10-2006.	
Poojya Doddapa Appa Engineering College, Gulbarga		Associate Professor		27 10-2006		20-03-2014.	
Poojya Doddapa Appa Engineering College, Gulbarga		Professor		21-03-2014		Till today	
Poojya Doddapa Appa Engineering College, Gulbarga		Director, IQAC		25-07-2024		Till today	
Total Experience	30	Teaching	30	Research	20	Administration	15

Research Publications					
Total Number of Publications	International Journal	National Journal	International Conference	National Conference	Total
	98	02	16	04	120
Recent Publications (Journals)					
1.	Smart glasses for visually impaired person Suvarna Nandyal, Prajita R Udgiri, Sakshi Sherikar 2023/6/8, Journal of Scientific Research and Technology (21-31)				
2.	Yoga pose annotation and classification by using time-distributed convolutional neural networkSomashekhar S Dhanyal, Suvarna S Nandyal, 2023/12, Indonesian Journal of Electrical Engineering and Computer Science, Volume 32, Issue 3, Pages 1639-47				
3.	An Effective Machine Learning-based Segmentation and Feature Extraction Technique for Muscular-Disorder Somashekhar S Dhanyal, Suvarna Nandyal, 2023/6/19, 2023 3rd International Conference on Pervasive Computing and Social Networking (ICPCSN), 475-482				
4.	Design and Development of Smart Solar Charging Station, Suvarna Nandyal, Ishikaa S Chawda, Nikita V Bhoma, Publication date 2023/6/11 Journal of Scientific Research and Technology (32-46)				
5.	An Efficient Approach for Compression of Endoscopic Video Using MapReduce, Suvarna Nandyal, Heena Kouser Gogi, 2023/10/31, ICT Systems and Sustainability: Proceedings of ICT4SD 2023, Volume-765				
6.	Suvarna S. Nandyal, Sharanabasappa Sharanabasappa Deep ResNet 18 and enhanced firefly optimization algorithm for on-road vehicle driver drowsiness detection January 2024 Journal of Autonomous Intelligence 7(3)DOI: 10.32629/jai.v7i3.975				
7.	Dr. Suvarna nandyal, shireen kausar “development of comprehensive database system of paralysis patients for automated diagnosis” Proceedings international conference on recent trends in ai, iot, machine learning, image processing and their applications (ICAIMI -2024) & tech innovations showcase may 25-27, 2024 isbn number : 978-93-340-6239-7				
8.	Dr. Suvarna nandyal, shireen kausar, “A Comparative Study of Otsu Thresholding and GrabCut for Image Segmentation on Dataset of Paralysis affected patients” 9th International Conference on Information and Communication Technology for Intelligent Systems 2025 Bangkok, Thailand.				
9.	Nikhil S Tengli, Suvarna Nandyal, “Scalable Hybrid Deep Learning Framework for Cold-Start Ethnic Fashion Classification and visual recommendation” Communicated with IAES International Journal of Artificial Intelligence(IJ-AI) Vol-99, ISSN: 2252-8938				

List of published papers

2013

1. A Text Based Approach to Content Based Information Retrieval for Indian Medicinal Plants, International Journal of Physical Science, Vol. 3, No.11, 2008, pp. 264-274.
2. A Combined Color, Texture and Edge Features Based Approach for Identification and Classification of Indian Medicinal Plants, International Journal of Computer Applications, (IJCA) ,(0975-8887), Publisher: Foundation of computer science, USA. New York, Vol. 6, No.12, 2010, pp. 45-51.
3. Aspect Ratio Based Identification and Classification of Medicinal Plants in Indian Context, CiiT International Journal of Digital Image Processing, Vol 3, No. 11, 2011, pp. 698-704.
4. Suitability of Segmentation Techniques for Recognition of Medicinal Plants in the Indian Context, Journal of Medicinal and Spice plants, Vol.16, No. 3, 2011, pp. 124-134.
5. A Method for Identification and Classification of Medicinal Plants' Images Based on Level Set Segmentation and SVM Classification, International Journal of Computational Vision and Robotics, Inderscience Publisher, Vol. 3, Nos. 1/2, 2012, pp.96-114.
6. A Color and Edge Histograms Based Medicinal Plants' Image Retrieval, International Journal of Image, Graphics and Signal Processing (IJIGSP), Vol. 4, No. 8, 2012, pp.24-35.
7. Identification and Classification of Medicinal Plants Images Using Texture and Color features, International Journal of Applied pattern Recognition, 2011

2013-14

1. Base and Apex Angles and Margin Types Based Identification and Classification from Medicinal Plants' Leaves Images, International Journal of Computational Vision and Robotics, Inderscience Publisher, Volume 3, No. 3, 2013, pp. 197-224.
2. Annotated Image Search: Annotated Image Search Using Text and Image Features, International Journal of Scientific and Research Publications, Volume 3, Issue 10, (2013), pp. 2250-3153.
3. Automated Identification of Plant Species from Images of Leaves and Flowers used in the Diagnosis of Arthritis, International Journal of Research in Engineering & Advanced Technology, Vol 1, Issue 5, (2013), pp. 1-9.
4. Automatic System for Image-Based Information Retrieval in Mobile Devices, International Journal of Research in Engineering & Advanced Technology, Vol 1, Issue 4, (2013), pp. 1-9.
5. Leaf Classification Based On Shape Features Using Backpropagation Neural Networks, International Conference on Emerging Trends on Engineering and Management, Vol. 10, issue 4, pp. 155-162.

6. Identification of Growth Rate of Plant based on Leaf features using Digital Image Processing Techniques, International Journal of Emerging Technology and Advanced Engineering, Vol. 3, Issue 8, 2013.
7. Integration of Palm and Fingerprint Features for Person Authentication Using Image Processing Techniques, International Journal of Research in Engineering & Advanced Technology, Volume 1, Issue 4, Aug- Sept, 2013, pp.1-11.
8. Crop Growth Prediction Based On Fruit Recognition Using Machine Vision, International Journal of Computer Trends and Technology (IJCTT) – Volume 4, Issue 9, Sep 2013, pp.3132-3137.
9. Vehicle Detection And Traffic Assessment Using Images, International Journal of Computer Science and Mobile Computing (IJCSMC), Vol.2, issue 9, September 2013, pp.8-17.
10. A real time intelligent alarm system on driver Fatigue Based on Video Sequences, International conference on Computational Vision & Robotics (ICCV-2014), at IIMT, Research network Bhubaneswar, Odisha, 10th Aug 2014.(Book Chapter)
11. Texture based approach for Image retrieval using neural networks ,International conference on Innovations in Computer Science & Engineering(ICICSE2013), GNDEC Bidar, 20-21 Sept 2013.

2014-15

1. MFCC Based Text-Dependent Speaker Identification Using BPNN, International Journal of Signal Processing Systems Vol. 3, No. 1, pp. 30-34, June 2015.
2. An Automatic Attendance System Using Image processing, The International Journal Of Engineering and Science, volume 4, issue 11, pp. 1 – 8, 2015
3. A Suitability of Shape and Texture Features in Retrieval of Medicinal Plants' Images in Indian Context ., International Journal of Machine Learning and Computing, Vol 2, No. 6, pp. 848-854, 2012, ISSN: 2010-3700.
4. Medical Information Retrieval through Mobile Devices, International Journal of Science and Research (IJSR), Volume 3 Issue 8, August 2014, pp. 1024-1028.
5. Antispoofing Methods for Authenticating Live Users in Biometric System, International Journal of Science and Research (IJSR), Volume 3 Issue 6, June 2014, pp.2694-2699.
6. Cardiac Phase Retrieval in Intravascular Ultrasound Sequences, International Journal on Recent and Innovation Trends in Computing and Communication ISSN: 2321-8169 Volume: 3 Issue: 3 1307 – 1314.
7. Privacy Preserving Public Auditing For Shared Data in Cloud Computing Environment With Dynamic Groups, International Journal of Engineering and Computer Science, Volume 4 Issue 6, June 2015, pp.

12357-12362.

8. Survey on Privacy Preserving Public auditing mechanism for shared data in Cloud Computing environment, International Journal of Advanced Technology in engineering and Science, Volume 03, Issue 01, May 2015, pp 19-24.
9. Dynamic Trust and Security Management protocol for delay tolerant networks, International Journal of Advanced Research in Science & Engineering, Volume 04, Issue 01, May 2015, pp 138-148.
10. An Approach for Video Compression Technique for Efficient Data Backup and Recovery in Public Cloud, International Journal of Science & research, Vol 4, Issue 8, Aug 2015.
11. A Hybrid Cloud Approach for Secure Authorized Deduplication, International Journal of Science & research, Vol 4, Issue 8, Aug 2015.

2015-16

1. Perceptual image segmentation using local binary pattern algorithm for analysis of psoriasis skin disease, International journal of computer science and information technology(IJCSIT 2016).
2. Label detect: A Mobile Assistant for Visually Impaired People Using Image Processing, International Conference On Current Research and Applications in Electrical Science(ICCRAES-16), October 2016 .
3. An Efficient control street lightning system for optimization of energy using IOT based on Sensors. ICCRAES-16.
4. Human Adaptive Air conditioner in smart home, ICCRAES-16.
5. Packet Scheduling Scheme for Wireless Sensor Network Packets for wireless sensor, International journal of emerging technology and advanced engineering (IJETAE 2016).Volume 6, Issue 9, PP. 204-211
6. A Scalable framework for adaptive mobile video streaming and efficient sharing in cloud, ICCRAES-16.
7. Compressed sensing enabled video streaming for real time secured application, ICCRAES-16.
8. Dynamic Trust and Security Management Protocol for Delay Tolerant Networks, International Journal of IJARSE, Vol.No.4, ISSN:2319-8354(E),
9. Privacy Preserving Public Mechanism For Shared Data In Cloud Computing Environment with Dynamic Groups, International Journal of IJECS, Vol.No.04 ISSN: 12357-7242, 6th June 2015.
10. Survey on Privacy Preserving Public Mechanism For Shared Data In Cloud Computing Environment, International Journal of IJATES, Vol.03, ISSN: 2348-7550, 1st May 2015.
11. Design and Implementation of Framework for Agri-cloud, International Journal of Agriculture Innovations and Research, Volume 4, Issue 2, Oct 2015, pp. 342-346.
12. Detecting Events in Cricket videos using RF Classifier, International Journal of Advanced Research Foundation, Volume 3, Issue 9, September 2016, pp.1-5.

2017-2018

1. Issues and Challenges of Semantic Query Based Automatic Highlights Extraction from Cricket Video: Analysis, National Conference on Computer Science and Information Technology (NCCSIT 2017), ISBN 978-93-84803-00-1, 3rd and 4th March 2017, at Women's University Bijapur.
2. Natural Language parsing using Fuzzy Canonical LR (1) Parser", International Journal of Latest Trends in Engineering & technology (IJLTET), vol 8 , issue 2 , pp 348-352 ,Mar 2017.
3. Intelligent Irrigation System, International Journal of Computer Applications (0975 – 8887) Volume 167 – No.14, June 2017, pp. 26-29
4. Blood vessel segmentation using hessian matrix for diabetic retinopathy detection, Second International Conference on Electrical, Computer and Communication Technologies (ICEC) Feb 2017, pp. 229-234
5. Fuzzy LALR Parser for Parsing Natural Language Sentences of English Language, International Journal of Latest Technology in Engineering, Management and Applied Science (IJLTEMAS), vol VI issue VIIS pp 104-109, July 2017.
6. Bottom up Fuzzy Parsers: Fuzzy Canonical LR and Fuzzy LALR Parsers for Parsing Natural Language, International Journal of Engineering and Technology, Vol 9 No 3S, pp 417-421, July 2017.
7. Bottom up Fuzzy Parsers: Fuzzy Canonical LR and Fuzzy LALR Parsers for Parsing Natural Language, International Conference on Modern Technologies in Engineering and Science (ICMTES), Knewton Institute of Research in Engineering and Technology, Vishakapatnam, Andrapradesh, June 2-3, 2017.
8. Application of Natural Language Processing: Identification of Blooms Levels in an Examination Question Paper , 2018 IEEE, International Conference on Electrical, Electronics, Computers, Communication, Mechanical and Computing (EECCMC) , Priyadarshini Engineering College, Vellore, Tamil Nadu, India, Feb 28-29, 2018.
7. Dynamic Fuzzy Parser to parse English sentence using POS Tagger and Fuzzy Max-Min Technique, 2018 IEEE International Conference on Current trends towards converging technologies, SVS College of Engineering Coimbatore, Tamil Nadu, India, Mar 1-3, 2018
9. Survey on Parts-Of-Speech Tagger for Natural Language Processing , 2018 IEEE International Conference on Current trends towards converging technologies, SVS College of Engineering Coimbatore, Tamil Nadu, India, Mar 1-3, 2018.
10. A Holistic Approach For Patient Health Care Monitoring System Through IoT, IEEE

International Conference on green computing and internet of things – 2018.

11. Smart Car Parking System using Arduino UNO , International Journal of Computer Applications, Volume 169 – No.1, pp 13-18.

12. An Approach for Prohibiting Distributed Denial-Of-Service Using Dynamic Path Identifiers through Inter-Domain Routing," *2018 Second International Conference on Green Computing and Internet of Things (ICGCIoT)*, Bangalore, India, 2018, pp. 98-103.

13. An Automation System for Recognition of Body Gesture Based on Body Points Using Image Processing, International Conference on Intelligent Computing and Sustainable System (ICICSS 2018).

14. An efficient approach for attendance management system for occluded face recognition, Intl Jr. of Advanced Research, Ideas and Innovations in Technology, Volume 4, Issue 3, May 2018, pp. 614-618.

15. Vehicle tracking based on GPS using Android, , Volume 48, Issue 3, June 2018, pp.131-136.

2018-2019

1. An Automated System for Identification of Fire and Behaviour of Prisoners Through Posture Using IOT, Second International Conference on Green Computing and Internet of Things (ICGCIoT), Bangalore, India, 2018, pp. 73-78, doi: 10.1109/ICGCIoT.2018.8753041.

2. Old-Age People Health Monitoring System using IoT and Machine Learning, IJISRT, Volume 4, issue 5, May 2019, pp.160-166.

3. A Survey On Motion Analysis In Dance Recognition International Journal of Engineering Development and Research Volume 7, Issue 3, 2019, pp. 258-262.

4. Artificial Intelligence Based Human Facial Action Recognition by Deep Learning Neural Network, International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8 Issue-10, August 2019, pp. 4052-4056

5. Raspberry Pi Based Assistive Communication System for Deaf, Dumb and Blind Person, International Journal of Innovative Technology and Exploring Engineering (IJITEE) ISSN: 2278-3075, Volume-8 Issue-10, August 2019, pp. 4047-4051.

6. An Automated System for Driver Drowsiness Monitoring Using Machine Learning. Intelligent Data Communication Technologies and Internet of Things. ICICI 2019. Lecture Notes on Data Engineering and Communications Technologies, vol 38. Springer, Cham (Book Chapter), 2020

7. An Automated System for Driver Drowsiness Monitoring using Machine Learning, International Conference on Intelligent Data Communication Technologies and Internet of Things , pp.466-476.(Springer), 2019

8. Agridrone: Automation of Agriculture using IoT, International Journal of Innovative Science and Research Technology, Volume 4, Issue 6, International Journal of Innovative Science and Research Technology, Volume 4, Issue 6. June – 2019.

2019-2020

1. Video-Based Human Silhouette and Expression Identification: A Survey, International Journal of Research and Analytical Reviews, Volume 6, Issue 2, PP 936-940, May 2019.
2. Developing Classifier Model for Hand Gesture Recognition for Application of Human Computer Interaction (HCI). In: Hemanth D., Shakya S., Baig Z. (eds) Intelligent Data Communication Technologies and Internet of Things. ICICI 2019. Lecture Notes on Data Engineering and Communications Technologies, vol 38. Springer, Cham, Lecture Notes on Data Engineering and Communications Technologies book series (LNDECT, volume 38), 2020.
3. Bird Swarm Optimization-based Stacked Auto encoder Deep Learning for Umpire Detection and Classification, Scalable Computing: Practice and Experience, SCPE. Volume 21, Issue 2, pp. 173–188, DOI 10.12694, 2020, (SCOPUS indexed)
4. Segmentation of an Indian Classical Dance Video using Different Segmentation methods, International Journal of Innovative Technology and Exploring Engineering' at Volume-8 Issue-9, July 2019.
5. Segmentation And Detection Of Yoga Asana From Video, Studia Rosenthaliana (Journal for the Study of Research), Vol 12, 6, pp.72-81, June 2020.
6. Analysis of compression Technique Used for Efficient Video Transmission, International Conference on Science Engineering and Management ,24-25 Jan 2020
7. Implementation Of Compression Technique For Endoscopy Video Using Intra Coding Hevc, IEEE International Conference on Technology, Engineering, Management for Societal Impact (TEMSMET 2020) on 10 Dec -2020.
8. Human Identification System Based on Spatial and Temporal Features in the Video Surveillance System, International Journal of Ambient Computing and Intelligence, Volume 11, Issue 3, PP 1-21. (SCOPUS INDEXED) , September 2020
9. Click-n-Purchase: A Shopping guide with Image Retrieval based on Mobile Visual Search in Fashion Domain: A Survey, International Journal of Computer Sciences and Engineering, Vol-7, Special Issue-14, pp. 88-92, 2020.
10. Key frame extraction technique for efficient video compression, JETIR International Journal, 2020.
11. A Novel Navigation System using Light Fidelity (Lifi Technology), International Journal for Research in Applied Science & Technology, Volume 8 Issue VIII Aug 2020- pp. 367-374.
12. IOT Based Firing System in Defence, International journal for research in applied science and engineering technology (ijras) Volume 8 Issue VIII Aug 2020, pp.375-379.
13. Hand Motion and Face Recognition System for Visually Disabled People, Fifth International Conference on Information and Communication Technology for Competitive Strategies (ICTCS 2020) held during December 11-12, 2020.(Springer).

14. Giving Voice To Vulnerable Children: Machine Learning Analysis Of Speech Detects Anxiety And Depression In Early Childhood, Fifth International Conference on Information and Communication Technology for Competitive Strategies (ICTCS 2020) held during December 11-12, 2020
15. An efficient framework for classifying the Clothing items based on fashion and fabric of the images, IEEE International Conference on Technology, Engineering, Management for Societal Impact (TEMSMET 2020) on 10 Dec -2020.
16. Adaptive Background Generation Method for Automated Teller Machine (ATM) with an Integrated Video Monitoring System, IEEE International Conference on Technology, Engineering, Management for Societal Impact (TEMSMET 2020) on 10 Dec -2020.

2020-2021

1. A Novel Navigation System using Light Fidelity (Lifi Technology), International Journal for Research in Applied Science & Technology, Volume 8 Issue VIII Aug 2020- pp. 367-374.
2. IOT Based Firing System in Defence, International journal for research in applied science and engineering technology (ijras) Volume 8 Issue VIII Aug 2020, pp.375-379.
3. Hand Motion and Face Recognition System for Visually Disabled People, Fifth International Conference on Information and Communication Technology for Competitive Strategies (ICTCS 2020) held during December 11-12, 2020.(Springer).
4. Giving Voice To Vulnerable Children: Machine Learning Analysis Of Speech Detects Anxiety And Depression In Early Childhood, Fifth International Conference on Information and Communication Technology for Competitive Strategies (ICTCS 2020) held during December 11-12, 2020
5. An efficient framework for classifying the Clothing items based on fashion and fabric of the images, IEEE International Conference on Technology, Engineering, Management for Societal Impact (TEMSMET 2020) on 10 Dec -2020.
6. Database creation for Normal and Suspicious Behaviour Identification in ATM Video Surveillance , International Conference on Computational Intelligence & Data Science for the Paper “” on 4 th Feb , 2021.(BEST PAPER AWARD).
7. Implimentation of Compression Technique for Endoscopy Video using Intra Coding HEVC, 4 th International Conference on Big Data and Cloud Computing , 20-21, Aug 2021, Springer.(BEST PAPER AWARD)

2021-2022

1. Nandyal, S., Gogi, H.K,. Comparative Analysis of Intra- and Inter-Prediction Compression Techniques for Endoscopic Videos. In: Fong, S., Dey, N., Joshi, A. (eds) ICT Analysis and Applications.

2. Deep Convolutional Neural Networks For Environmental Sound Classification

Aakash ., Abhishek S Nigudgi, Ankush M Awanty, Dr. Suvarna Nandyal

International Journal for Research in Applied Science & Engineering Technology (IJRASET) ISSN: 2321-9653; Volume 10 Issue VII July 2022- 3210-3214.

3. Dr. Suvarna Nandyal¹, Nikita Patil², Shweta Guttedar³, Rohit Bennur, Traffic Congestion Monitoring Using Smart Traffic Control Approach for Emergency Vehicle, International Journal for Research in Applied Science & Engineering Technology (IJRASET) ISSN: 2321-9653; IC Value: 45.98; SJ Impact Factor: 7.538 Volume 10 Issue IX Sep 2022, pp 580-583.
4. Automated Home Garden System Using Robotics, IEEE NKCon-2022, International Confere of IEEE North Karnataka, 2022.
5. Driver Drowsiness Estimation Based on Hybrid Feature Extraction and Light weighted Dense Convolutional Network Suvarna Nandyal 2022/4/23, 2022 IEEE International Conference on Distributed Computing and Electrical Circuits and Electronics (ICDCECE)
6. A SURVEY ON HUMAN POSE ESTIMATION AND CLASSIFICATION Suvarna Nandyal, Somashekhar S Dhanyal, 2022

2022-2023

1. Cricket event recognition and classification from umpire action gestures using convolutional neural network S Nandyal, SL Kattimani, PG Halakatti Int J Adv Comput Sci Appl 13 (6), 10.14569, 2022
2. Implementation of compression technique for endoscopy video using intra-coding HEVC Suvarna Nandyal, Heena Kouser Gogi 2022/8/2 Disruptive Technologies for Big Data and Cloud Applications: Proceedings of ICBDDC 2021, 667-678
3. An ensemble learning model for driver drowsiness detection and accident prevention using the behavioral features analysis S Nandyal International Journal of Intelligent Computing and Cybernetics 15 (2), 224-244
4. Chronic disease prediction using machine learning Vijay Kumar Korke, Vaibhav Chowdhary, Sagar M Keri, P Patil, Suvarna Nandyal 2022, Int J Res Appl Sci Eng Technol (IJRASET) 693-697
5. Comparative Analysis of Intra-and Inter-Prediction Compression Techniques for Endoscopic Videos Suvarna Nandyal, Heena Kouser Gogi, 2022/11/6 Book-ICT Analysis and Applications: Proceedings of ICT4SD 2022 (533-541)
6. Classification of fashion items based on shape features using machine learning, Nikhil S Tengli, Suvarna Nandyal, 2022/8/18 Book-Proceedings of international conference on computational intelligence, data science and cloud computing: IEM-ICDC 2021(29-41)
7. Gradient-Based Intra-prediction in H. 265/HEVC to Improve the PSNR Vijayalaxmi S Patil, Suvarna Nandyal, 2022/8/18, Book-Proceedings of International Conference on Computational Intelligence, Data Science and Cloud Computing: IEM-ICDC 2021(413-423)
8. Video Enhancement Algorithm using Pre-and Post-Processing for Compressed Videos Suvarna Nandyal, Vijayalaxmi S Patil, 2023/1/24, 2023 International Conference for Advancement in Technology (ICONAT) (1-5)
9. Video-based yogasan classification for the musculoskeletal disorder using the cervus trail dependent multiclass support vector machine, Suvarna Nandyal, Somashekhar S Dhanyal, 2023/5/4. Computer

2023-2024

1. Smart glasses for visually impaired person Suvarna Nandyal, Prajita R Udgiri, Sakshi Sherikar 2023/6/8, Journal of Scientific Research and Technology (21-31)
2. Yoga pose annotation and classification by using time-distributed convolutional neural network Somashekhar S Dhanyal, Suvarna S Nandyal, 2023/12, Indonesian Journal of Electrical Engineering and Computer Science, Volume 32, Issue 3, Pages 1639-47
3. An Effective Machine Learning-based Segmentation and Feature Extraction Technique for Muscular-Disorder Somashekhar S Dhanyal, Suvarna Nandyal, 2023/6/19, 2023 3rd International Conference on Pervasive Computing and Social Networking (ICPCSN), 475-482
4. Design and Development of Smart Solar Charging Station, Suvarna Nandyal, Ishikaa S Chawda, Nikita V Bhoma, Publication date 2023/6/11 Journal of Scientific Research and Technology (32-46)
5. An Efficient Approach for Compression of Endoscopic Video Using MapReduce, Suvarna Nandyal, Heena Kouser Gogi, 2023/10/31, ICT Systems and Sustainability: Proceedings of ICT4SD 2023, Volume-765
6. Suvarna S. Nandyal, Sharanabasappa Sharanabasappa Deep ResNet 18 and enhanced firefly optimization algorithm for on-road vehicle driver drowsiness detection January 2024 Journal of Autonomous Intelligence 7(3) DOI: 10.32629/jai.v7i3.975

Details of Patents Granted/published

INDIAN Patent

1. An automated system for theft detection based on human structure and expression identification using video surveillance. Patent application no. 201921013736, **Granted 11/03/2021** Published: 22/11/2019
2. Process for identification and classification of dance types and system thereof, Patent application no. 201941037608, Filed : 8/09/2019 Published: 27/09/2019 , **Granted on: 22/03/2022.**
3. Automatic Highlights Extraction from Cricket Based on Semantic query Processing, Patent application no. 202041039981, Filed: 15/09/2020 Published: 16/10/2020, **Granted: 08/07/2021.**
4. System and Method for development of Video Compression Technique for Efficient Data Transmission in Cloud Computing, Patent application no. 202041040000, Filed: 15/09/2020 **Published: 30/10/2020**
5. Expandable And Retracted Vehicle - Social Innovation, Patent application no. 202021041957, Filed: 28/09/2020 Published: 30/10/2020 , **Granted on : 22/05/2022**
6. Pandemic Prevention System, Publication of Patent in the Official Journal of the Patent office, Patent application no. 202041042380, Journal Issue No. 41/2020, **Date: 09/10/2020.**
7. Automated system and method for classification and retrieval of Yogasan for muscular disorder, Patent application no. 202141030390 , Published on **16/07/2021.**

International Patent :

1. Methods and systems for detecting an infected person and taking prevention measure thereof, Patent application no. 2020103093, Filed: 29/10/2020, AUSTRALIAN PATENT

2. Process of Synthesis of Benzimidazole derivatives against M.tb,

Patent application no. 2020104192 filed:20-12-2020, **Granted: 19-02-2021** AUSTRALIAN PATENT

Memberships in Professional Bodies	
S.No.	Name of the Professional Body
1.	Member of ISTE, IETE, CSI and IEEE.
2.	Member of AIMER(Artificial Intelligence Medical and Engineering Researchers Society)

Programs Organized					
1.	ICCRAES	Conducted	TEQIP-II	4-10-2016 to 5-10-2016	Electrical Science Branch
2.	Real Time DataWear Housing & Visualization: Tools AND Techniques	Conducted	TEQIP-II	25-3-2016 to 26-3-2016	PDACEK
3.	Featuring User Interface Using Python	Conducted	TEQIP-II	24-3-2017 to 26-3-2017	Jointly organized with ISE,PDACEK
4.	Software Testing And Tools	Conducted	TEQIP-II	21-3-2017 to 23-3-2017	PDACEK
5.	Automation Using Internet Of Things(IoT)	Conducted	TEQIP-II	23-1-2017 to 28-1-2017	PDACEK
6.	Machine intelligence for data analysis using python	conducted	TEQIP-III	4-9 april 2018	CSE PDACEK
7.	Markov-chain modeling	conducted	TEQIP-III	30 april 2018	CSE PDACEK
8.	UI/UX design	conducted	TEQIP-III	April 2018	CSE PDACEK
9.	Big Data and Hadoop (BDH)	conducted	TEQIP-II	29th Feb 4th March 2016	CSE,PDACEK
10.	Cloud Computing Technology and	conducted	TEQIP-II	March 20 to 24, 2013	CSE,PDACEK

	its Applications				
11.	Mango DB	conducted		4th to 5th Oct 2015	CSE,PDACEK
12.	One Week Short Term Training Programme(ST TP) on “Dynamic web designing using PHP,MYSQL and JAVASCRIPTS”	conducted	TEQIP-II	18-22 January 2017	PDACEK
13.	One day work shop on PG curriculum and OBE	conducted		4 july 2018	BNMIT, Bangalore
14.	"Applications of IoT Technology with Industry and Smart City Perspective"	conducted		17th - 21th Aug 2019	PDACEK
15.	Data Analytics using HPCC	conducted		26th to 27th March 2021	Workshop PDACE

Training Programs Attended

Sr.No	Title	Place	Date
1.	FDP “ Advanced Techniques For Simulation of Wireless Networks”	Godutai Engineering College for Women.Glb.	13 th to 17 Feb 2014
2.	FDP “Real World DSP”	CIT,Gubbi, Tumkur	15 th to 27 th July 2013
3.	FDP “C-Programming and MAT Lab Applications”	Government Polytechnic Glb.	10 th to 21 March 2014
4.	Two days National Level Seminar on Image Processing & Communication Systems(IPCS- 2013)	Appa Institute of Engineering & Technology	21 to 22 nd September 2013
5.	Seminar “Contemporary Management Techniques of Industry.	PDACEG	7 th October 2013
6.	Transformation in engineering education	BMS College of Engg, Bangalore	01-04-2015 , 02-04-2015
7	Big Data and Hadoop (BDH)	CSE,PDACEK	29th Feb 4th March 2016

8	Performance Analysis of Computer Network	CSE,PDACEK	22 nd to 26 th September 2014
9	Android Application Development	CSE,PDACEK	3 rd – 4 th December 2014
10	Emerging trends in IT career-“Holistic Picture of IT career life cycle	CSE,PDACEK	1 st -3 rd March 2013
11	Cloud Computing Technology and its Applications	CSE,PDACEK	March 20 to 24, 2013
12	Mango DB	CSE,PDACEK	4th to 5th Oct 2015
13	One Week Short Term Training Programme(STTP) on “Dynamic web designing using PHP,MYSQL and JAVASCRIPTS”	PDACEK	18-22 January 2017
14	One week faculty development programme”Pedagogical skills training for engineering teachers”	PDACEK	27 feb- 3 march 2017
15	One week faculty development programme on “Data analytics using R”	PDACEK	7-11 MARCH 2017
16	Discrete mathematics	VTU,RRC KLB	July 2018
17	One day work shop on PG curriculum and OBE	BNMIT, Bangalore	4 july 2018
18	"New Model Education format including course outcomes (CO) & Blooms Taxonomy"		
19	"Cyber Security"	14th - 18th March 2019	
20	"Intellectual Property Rights"	26th - 27th July 2019	
21	"Applications of IoT Technology with Industry and Smart City Perspective"	17th - 21th Aug 2019	
22	"Role of IoT in research & applications"	23th - 24th Aug 2019	
23	"National Level Quiz On NAAC"	P.V.P.P College of Engg Mumbai	
24	"Emerging Technologies In Web and Data Engineering"	PDACEK	
25	"Exemplary Practices Teaching- Learning and Evaluation of Courses in Computer Science & Information Technology"	VTU Kalaburagi	
26	"Contemporary Research trends in Electronics & Communications and Computer Science"	VTU Kalaburagi	
27	"Current Trends and Research Opportunities In Information Technology"	PDACEK	

28	"Challenges in Cybercrime & Enforcement of Cyber Security"		Dr. M.R. G research Institute Chennai
29	"IPR: Opportunities And Challenges"		PDACEK
30	"Trends in Data Science"		M S Ranaiah Bangalore
31	"Machine Learning on a Distributed Platform"		R V College of Engineering
32	Advanced C and Kernal Programming		CSE Dept,PDACEK TEQIP-III
33	Data Science Trends & Opportunities Webinar - Online		CSE Dept,PDACEK
34	Cyber security and Forensics FDP		PDA
35	“CYBER SMART CITIZEN” An Awareness Programon Cyber Security for General Public Seminar		PDA
36	Cyber security and Tools- 2 days training online program		PDA
37	Web Programming -SWOT in E-Commerce Training program for students- Training program	CSE Dept, PDACEK	06-07 ,2021
38	Data Analytics using HPCC	Workshop PDACEK	26th to 27th March 2021
39	Women safety and security	Webinar PDACEK	24-03-2021
40	Block Chain Technology & its Applications	FDP PDACEK	22 to 26 March 2021
41	Academy Industry Synergy: Leveling Expertise for mutual growth	Vishwakarma institute Pune	21/1/2025 to 24/1/2025
42	Trends in threat analysis of cyber attacks in machine learning	Vardhaman College of Engineering, Hyderabad	23/10/2024 to 28/10/2024

Special Lectures Presented	
1.	15/09/2015, on Research Issues in Content based image retrieval, one week Faculty Development Programme on “Training program on Matlab for Digital Image Processing and Pattern Recognition Applications”, from 13th to 17 th sept 2014.
2.	Delivered 2 days talk on E-Governance for Kalburagi District teachers under District Training Centre in 6 sessions

Role&Responsibilities	
1.	Worked as member of exam co-coordinator of GUG exams for three years.
2.	Worked as member of various committees in P.D.A. Engineering College, kalaburgi including both at college and dept level.
3.	Worked as Academic Council member of PDACEG.
4.	Administration work, Bos Chairman, BOE member, Curriculum revision
5.	Worked as a PG-Coordinator of Computer Science & Engg course.
6.	Worked as Coordinator of training & placement for four years.
7.	Worked as Convener of various Faculty Development Programs/Training Programs
8.	Worked as External BOS member at SUK and BEC bagalkot
9.	Worked as LIC committee Member
10.	Presently serving as IQAC (Internal Quality assurance Cell) Director.

At Dept level :

- Establishment of new labs – IOT, Cloud Computing, Cyber security and Research lab, updation of Campus network.
- Industry institute interaction through MOU.
- Started MOU and follow up activity such as updation syllabus as per requirement with IT, students are provided industry exposure through Industry resource/ alumni talk.
- Visited CISCO and other Industry with students to provide students exposure on live projects and increase placement.
- Provided community services, Provided service to Government sectors through conduction of Exams, tests for ZP and for various computer operator posts.
- Involved as advisory member of third party member for verification of systems at Govt organization.
- Worked as subject expert committee member in PDA and other institutes.
- Worked as program co convener for International conference, ICCRAES-2016 organized at PDACE.

Institution Level:

- Served as Academic Committee member .
- Worked as Purchasing Committee member of TEQIP- Phase –III,
- Worked as a Purchasing Committee member of ITBT, Govt of Karnataka.
- Worked as Convener for Smart Tantroata, Hackathon-2019.