



PERSONAL PROFILE

Name	Mrs.P.KALAISELVI
Designation	HOD & ASSISTANT PROFESSOR
Department	COMPUTER SCIENCE
Primary discipline (Area of interest)	PROGRAMMING LANGUAGE, COMPUTER NETWORKS, WEBTECHNOLOGY,
Educational qualification	M.Sc., M.PHIL., B.Ed.,
Additional qualification (SET/NET/CISR/JRF)	
Gender	FEMALE
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CAREER PROFILE

ACADEMIC EXPERIENCE	
Total years of teaching experience (Both UG & PG)	6 YEARS
Years of teaching experience (UG) (In current institution)	6 YEARS
Years of teaching experience (PG) (In current institution)	
Years of experience in current academic rank	ASSISTANT PROFESSOR
Previous academic rank (if yes, mention the details)	-
Research experience (Excluding PhD)	1.5 YEARS
Area of specialization	COMPUTER SCIENCE
RESEARCH GUIDANCE	
Number of Ph.D. guided	-
Number of M.Phil. guided	-
Number of UG – projects (Project work must have been documented as dissertations)	1
Number of PG – projects (Project work must have been documented as dissertations)	1

RESEARCH & PUBLICATIONS

Number of articles published in web of science indexed journals	
Number of articles published in Scopus indexed journals	1
Number of books authored	-
Number of book chapters published	-
Number of editorials published	-
Number of communications/letters published	-
Number of monographs	-
Number of course materials published	-
Number of funded research projects	-
Number of scientific innovations guided	-

EXTENSION ACTIVITIES

Number of seminars organized	International: National:
Number of seminars attended	International: National: 1
Number of workshops organized	International: National:
Number of workshops attended	International: National: 1
Number of conferences organized	International: National:

Number of conferences attended	International: 1 National: 2
Number of faculty induction/development programmes organized	International: National:
Number of faculty induction/development programmes attended	International: National: 1
Number of refresher/orientation programmes organized	International: National:
Number of refresher/orientation programmes attended	International: National:
Number of certificate/training programmes organized	International: National:
Number of certificate/training programmes attended	International: National:
Number of invited presentations/participations	International: 1 National: 1
Number of participations in national events/professional bodies	-
Number of international visits	-
Memberships in university bodies	-
Memberships in government bodies/meetings/societies	-
Memberships in non-government bodies/meetings/societies	-
Number of awards received	International: National:
Number of citations received	-
Honorary memberships	-
Honorary fellowships	-
Number of consultancy work	-
ADDITIONAL RESPONSIBILITIES (held in the current institution)	
Co-ordinator of any committees/cells (If yes, mention the name alone)	ATTENDANCE CO-ORDINATOR
Member of any committees/cells (If yes, mention the name alone)	NAAC CRITERIA 1, ADMISSION COMMITTEES.
Any other achievements	

DETAILS OF RESEARCH AND PUBLICATIONS: 3 PUBLICATIONS

DETAILS OF ADDITIONAL RESPONSIBILITIES: HEAD OF THE DEPARTMENT



1. "A Deep Learning Neural Network Techniques in Visualization, Imaging Data Acquisition And Diagnosis for Covid-19 in Turkish Journal of Computer and Mathematics Education (Vol-12 No:10) on May 2021.

Turkish Journal of Computer and Mathematics Education

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Research Article

A Deep Learning Neural Network Techniques in Visualization, Imaging Data Acquisition And Diagnosis for Covid-19

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Abstract: The corona virus disease pandemic of 2019 (COVID-19) is sweeping the globe. Medical imaging, such as X-ray and computed tomography (CT), is critical in the global fight against COVID-19, and recently evolving artificial intelligence (AI) technologies are enhancing the capacity of imaging tools and assisting medical specialists. For example, image acquisition driven by Deep Learning Architecture may help optimise the scanning process and reshape the workflow with minimal patient intervention, ensuring the best security for imaging technicians. Furthermore, computer-aided platforms assist radiologists in making clinical decisions, such as disease identification, surveillance, and prognosis. In this workflow, we cover the full range of COVID-19-related medical imaging and analysis techniques, including image processing, segmentation, diagnosis, and follow-up. Traditional methods are used to interpret the evaluation, and various output metrics are collected.

Keywords: CT, X-ray, Covid-19

1. Introduction

1.1 Digital Image Processing

The field of digital image processing includes the use of a digital machine to process digital images. A digital image is made up of a certain number of elements known as picture elements, image elements, pels, or pixels. The most common term for the basic element of a digital image is pixel. Digital imaging technologies, like human imaging systems, can capture digital images and archive them for later processing. However, unlike humans, which can only capture images in the visible band of the electromagnetic spectrum, imaging devices can capture images across the entire spectrum. As a result, digital image processing has a broad range of applications in fields such as medicine, remote sensing, traffic control, record analysis and retrieval, and so on.

Computer Vision, on the other hand, is a research domain whose ultimate goal is to use computer systems to mimic human vision by learning from the environment and being able to make inferences about real circumstances and taking appropriate actions based on those inferences. Another branch of expertise in this field is Artificial Intelligence (AI), which aims to mimic human intelligence. Image Analysis or Image Understanding is a field that sits somewhere between image processing and computer vision. The scientific community is divided about where the line between image processing, image analysis, and computer vision should be drawn. Image processing is often defined as a discipline in which images serve as both the input and output of the process. It's a procedure that includes basic operations like noise reduction, contrast enhancement, and image sharpening, among others. Image analysis is a method in which the inputs are typically images, but the outputs are usually attributes derived from those images (e.g., edges, contours, and the identity of individual objects). Finally, computer vision can be described as a process that entails "making sense" of a group of recognised objects, such as in image analysis, as well as performing cognitive functions normally associated with vision. The field of identification of individual regions or artefacts within an image appears to be a reasonable place of convergence between image processing and image analysis, based on the preceding discussions. In a wider context, digital image processing includes processes that use images as inputs and outputs, as well as processes that extract attributes from images, up to and including object recognition. Consider the issue of automatic text recognition inside a general scene picture to further explain the idea. The processes of obtaining a text-containing image, pre-processing the image, segmenting the individual characters, defining the characters in the form of feature values appropriate for computer processing, and recognising those individual characters all fall under the umbrella of digital image processing. Depending on the degree of complexity of the problem corresponding to the level of expected solution indicated by the expression "making sense," making sense of the content of the image may be considered image processing or even computer vision.

2. "DESIGN AND RESEARCH FOR ADVANCED HUMAN AUGMENTATION IN THE INDUSTRIAL WORK CONTEXT "Published in 9TH INTERNATIONAL CONFERENCE ON "CONTEMPORARY ENGINEERING AND TECHNOLOGY –ICET, 2021, April 11th.

255. DESIGN AND RESEARCH FOR ADVANCED HUMAN AUGMENTATION IN THE INDUSTRIAL WORK CONTEXT

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Advanced human augmentation provides a human-centered perspective on technology design. It builds upon earlier technological concepts such as ubiquitous computing, wearable computing, augmented- virtual- and mixed realities, autonomous systems and ambient intelligence. This paper contemplates advanced human augmentation in the industrial work context, and considers the requirements for a future augmented Super-worker and the prerequisites for their advanced augmentation. In this paper, it is anticipated that to support the design of new augmenting solutions current human-centered design practices should be reconsidered and enhanced in new directions.