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Journal Name:	**Asian Journal of Research in Computer Science**
Manuscript Number:	**Ms_AJRCOS_68220**
Title of the Manuscript:	**Comparative Between Two Systems Using Deep Learning for Detection And Classification Leukocytes in Leukemia**
Type of the Article	**Original Research Article**

General guideline for Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty'**, provided the manuscript is scientifically robust and technically sound.
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PART 1: Review Comments

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Compulsory REVISION comments	Note: It is better that the author to differentiate between ConvNet and Convolutional Neural Network and choose one. (The first use of abbreviation CNN in text should be considering for Convolutional Neural Network). It is better to consider CNN for the term Convolutional Neural Network. Because in the abstract it is intended for Convolutional Neural Network and in the first line of section 2 it is intended for ConvNet !. It is better to decide and correct in the whole text. I think CNN was intended for Convolutional Neural Network. If this is true, then only ConvNet should be considered in the first line in Section 2!.	
Minor REVISION comments	Please correct the following in the text: 1. In title: Comparative Between Two Systems Using Deep Learning for Detection and Classification Leukocytes in Leukemia. 2. ….task into sub-tasks through comparing between CADM1 and CADM2. 3. The main purpose of the paper is proving the high performance … 4. … through comparing between CADM1 and CADM2. 5. Keywords: Acute leukemia diagnosis, machine learning, deep learning, CNN, YOLOv2 Algorithm, CADM1, CADM2. 6. The human immune system depends on the white blood cells [4]–[14]. 7. 3.2 Computer-Aided Diagnosis with Two Model (CADM2) 8. 3.3 Data Acquisition and Augmentation 9. Finally, Section (5) is a conclusion and mentioning important points. 10. 5. CONCLUSION =➔ **5. CONCLUSION AND MENTIONING IMPORTANT POINTS** 11. Section (2) theatrical and related…. 12. Fig. 3. The architecture of CADM1 13. Fig. 4. The architecture of CADM2 14. Fig. 5. Confusion matrix on test dataset for CNN in second model, CADM2. 15. Table 2. The details of the CNN (model 2) architecture in CADM2. 16. Table 3. Compression between both systems. 17. The author tried to using deep learning to extract the object in the images, the faster region…….. 18. The pre-processing was the based phase which were different from the approach that addressed our problem,…… (Deleted space between "d" and "o" character.) 19. Fig. 4 is the architecture of CADM2 with two models. 20. Fig. 5 show the confusion matrix of CNN in the second model on the test dataset. 21. ….. white blood cells by the first model, see table 2. 22. Table 3: comparison between both systems. 23. In addition, color jitter with random values is……. 24. Due to the lack of data and difficulty obtaining more smears of leukemia patients, this paper used the augmentation approach that used in [17]. 25. Our experiment compared two systems, basically, both systems depended on YOLOv2 framework and CNN……. (It is better that YOLO v2 change to YOLOv2 in all the text) 26. However, this method consumes time and hand working which is different from our system that tries to use only deep learning without pre-processing. (Deleted space between "t" and "p" character.) 27. And then white blood cells (was / wee) separated based on the watershed algorithm. 28. Secondly, nuclei (was / were) extracted from cell and finally…….	

	27. The system was (consists / consisting) of two steps, the first step…. 29. The system used Gray Level Co-occurrence Matrix (GLCM) to detect the hematological disorders and then classified extracted feature map by SVM. 30. Where the author used SVM for segmentation and extracting features and deep neural network for classification of the extracted features. 31. both of them a case of Deep Learning…. (Deleted space between “m” and “a” character.) 32. In Section 2: Both systems are used ConvNet (CNN) which refers to Convolutional Neural Network and…… 33. The main difference between ANN and convolutional neural network in the convolution operation, …… 34. Acute Myeloid Leukemia (AML), Acute Lymphoblastic Leukemia (ALL), Chronic Myeloid Leukemia (CML) and Chronic Lymphocytic Leukemia (CLL)…. 34. In [12] the author detects white blood cells in ALL by using region-based convolutional… 36. Moreover, the diagnosis by the computer system is a great challenge, deep learning assists to build Computer-Aided System (CAD) system to do [6]. 37. In [40] the author proposed a CAD which basically depends on image processing…. 38. Secondly, it can achieve high performance without pre-processing by using more than one technic, such as detection and classification that used in our experiment. 39. The second system proves that can achieve high accuracy without any pre-processing when the main task is divided into sub-takes…. 40. The CNN is very simple which consists of 8 layers; three layers is convolutional….. It is better that the author to differentiate between ConvNet and Convolutional Neural Network and choose one. (The first use of abbreviation CNN in text should be considering for Convolutional Neural Network). It is better to consider CNN for the term Convolutional Neural Network. Because in the abstract it is intended for Convolutional Neural Network and in the first line of section 2 it is intended for ConvNet. 41. Fig. 3 is the architecture of CADM1. 42. Look Once (YOLO v2) algorithm and Convolutional Neural Network (CNN)…… 43. In abstract: You Only Look Once (YOLOv2) algorithm based on Convolutional Neural Network (CNN). 44. The format of references “6” and “24” was different from the others (the title of the article did not appear between the two quotes). 45. The name of the journal is not specified in reference 2. 46. The CNN is very simple which consists of 8 layers; three layers is convolutional…..	
Optional/General comments	1. Also, the paper proved that can (be depending / depend / depending) only on deep learning without……. (Optional) 2. Microscopic test of a blood smears plays a critical part to analyze numerous blood illnesses. (Optional) 3. Adaptation to "section (2) theatrical and related works that contributed to this field in recent years" With "2. THEORICAL AND RELATED WORK". (Optional) 4. Considering additional and important points in Section 5 (conclusion) or Section 4: This process of identifying and classifying WBC can be vital for doctors and medical staff to make a decision. Comparing the results and accuracy of this research (two methods) with the results of other articles (previous approaches) could show the quality of the work in terms of training time and accuracy. (Optional)	

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PART 2:

	Reviewer's comment	**Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

Reviewer Details:

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