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## Appendix A Plagiarism Report



### Document Information

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# Medical Image Analysis for Pneumonia Detection using Deep-CNN Multimodal & Transfer Learning Model – A Machine Learning Application



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## Entire Document

Medical Image Analysis for Pneumonia Detection using Deep-CNN Multimodal & Transfer Learning Model – A Machine Learning Application A Thesis Submitted to the Atmiya University, For the Degree of Doctor of Philosophy in Faculty of Engineering & Technology by Baraiya Mehulkumar Mohanbhai Enrolment No.190156001 Under the Guidance of Dr. Ashish M. Kothari Department of Electronics & Communication ATMIYA UNIVERSITY, Yogidham Gurukul, Kalawad Road, Rajkot-360005, Gujarat (India) May, 2023  
Page | I Declaration by the Candidate I declare that thesis entitled "MEDICAL IMAGE ANALYSIS FOR PNEUMONIA DETECTION USING DEEP-CNN MULTIMODAL & TRANSFER LEARNING MODEL – A MACHINE LEARNING APPLICATION" is my own work conducted under the supervision of Dr.Ashish M. Kothari at Department of Electronics & Communication, Faculty of Engineering & Technology, Atmiya University, Rajkot, Gujarat, India and approved by the Director of Research. I further declare that to the best of my knowledge the thesis does not contain any part of any work which has been submitted for award of any degree either in this University or any other University without proper citation. Date: Place: Rajkot Signature of Candidate BARAIYA MEHULKUMAR MOHANBHAI

Page | II Certificate of Supervisor This is to certify that work entitled "MEDICAL IMAGE ANALYSIS FOR PNEUMONIA DETECTION USING DEEP-CNN MULTIMODAL & TRANSFER LEARNING MODEL – A MACHINE LEARNING APPLICATION" is a piece of research work done by BARAIYA MEHULKUMAR MOHANBHAI under my supervision for the degree of Doctor of Philosophy in Department of Electronics & Communication, Faculty of Engineering & Technology, Atmiya University, Rajkot, Gujarat, India To the best of my knowledge and belief the research work and thesis I. Embodies the work of candidate himself / herself, II. Has duly been completed, III. Fulfils the requirement of ordinance related to Ph.D. degree of the University& IV. is up to the standard both in respect of content and language for being referred to the examiner. Date: Place: Rajkot Signature of Candidate BARAIYA MEHULKUMAR MOHANBHAI

Page | III Acknowledgement I would like to express my deepest gratitude and appreciation to all those who have supported and guided me throughout the completion of this thesis. First and foremost, I would like to extend my sincere thanks to my supervisor Dr. Ashish M. Kothari for their invaluable guidance, expertise, and unwavering support throughout the research process. Their insightful feedback and continuous encouragement have been instrumental in shaping this work. I am also grateful to my co-supervisor Dr. Navneet Ghedia for providing a conducive academic environment and access to resources necessary for conducting this research. The opportunity to learn from esteemed professors and researchers has been immensely valuable. I extend my thanks to the participants who generously contributed their medical image data for this study. Their cooperation and willingness to participate have been crucial in the development and evaluation of the proposed model. I would like to acknowledge the contributions of the medical professionals and experts who have made significant advancements in the field of medical imaging and pneumonia diagnosis. Their groundbreaking research and publications have provided the foundation upon which this work is built. I would like to express my appreciation to my family especially my better half Prof. Megha Chavda, my daughter Vrishti Baraiya, family and friends for their unwavering support, encouragement, and understanding throughout this journey. Their belief in me has been a constant source of motivation. Finally, I am grateful to all those who have provided assistance, directly or indirectly, in the completion of this thesis. And thank you to everyone who has played a part in this thesis. Your support and guidance have been invaluable, and I am sincerely grateful for your contributions. BARAIYA MEHULKUMAR MOHANBHAI

## Appendix B Publications

### International Journals

- [1] M. M. Baraiya, A. M. Kothari, APPLICATION OF MACHINE LEARNING IN IMAGE ANALYSIS, International Journal of Engineering & Scientific Research, Double-Blind Peer Reviewed Refereed Open Access International Journal - Included in the International Serial Directories Indexed & Listed at Ulrich's Periodicals Directory ©, U.S.A., Open J-Gate as well as in Cabell's Directories of Publishing Opportunities, U.S.A., ISSN: 2347-6532, Vol.10 Issue 04, April 2022  
UGC Care List : IJMRA Publishing, ISSN: 2347-6532, From June 2019 to Present, UGC Approval Number - 46710
- [2] M. M. Baraiya, A. M. Kothari, DEEP LEARNING FOR MEDICAL IMAGE SUPER-RESOLUTION FOR PRECISION DIAGNOSIS, Journal of Data Acquisition and Processing, Publisher: Chinese Physical Society, ISSN: 1004-9037, Vol.38 (1), pg 1622-1631, 2023.  
Scopus Coverage Years : 2001 to present, ISSN: 1004-9037