

# A Literature Review of Anticipating Tuberculosis through Machine Learning

Kaddi Giriraj<sup>1</sup>, Pranav Acharya<sup>2</sup>, Vimuktha E. Salis<sup>3</sup>

Students, Department of Information Science and Engineering<sup>1,2</sup>

Guide, Department of Information Science and Engineering<sup>3</sup>

Global Academy of Technology, Bangalore, Karnataka, India

**Abstract:** Tuberculosis (TB), caused by *Mycobacterium Tuberculosis* (MTB), remains a around the world prosperity broad with extraordinary respiratory proposals. In show disdain toward of diverse disclosure systems, under-diagnosis and misdiagnosis proceed, particularly in locale like Sub-Sahara Africa and South-East Asia. This paper presents a novel approach by proposing and making a prescient appear for Multi Cure Resistance in Tuberculosis. In a groundbreaking extension of our explore, we are by and by planning our center towards anticipating multidrug-resistant Tuberculosis (MDR-TB). MDR-TB stances a honest to goodness threat due to its resistance to schedule TB drugs. By applying the illustrated amplexness of Bayesian Conviction Frameworks, we point to form a energetic prescient appear that recognizes individuals at risk of making MDR-TB. This creative approach addresses a essential hole in current TB ask almost and contributes to the around the world effort to combat the rise of drug-resistant strains. Our commitment is to improvement the field of TB desire, emphasizing precision, early interventions, and the extraordinary objective of saving lives through proactive healthcare measures.

**Keywords:** Mycobacterium Tuberculosis, MultiDrug Resistance, Predictive Modeling, Healthcare interventions

## REFERENCES

- [1] World Health Organization, "Global Tuberculosis Report 2017", WHO/HTM/TB/2017.23, pp. 1-8, 2017.
- [2] World Health Organization, "Tuberculosis in Women Report 2018" WHO Global TB Programme, WHO/CDS/TB/2018.36 REv.1, pp. 1-2, 2019.
- [3] World Health Organization, "Global Tuberculosis Report 2018".WHO/CDS/TB/2018.20, pp 7, 2018. ISBN 978-92-4-156564-6
- [4] World health Organization, "Global Tuberculosis Report 2019". WHO/CDS/TB/2019.15, pp 1-3, 2019. ISBN 978-92-4-156571-4
- [5] Alile, Solomon Osarumwense. "A Novel Approach For Detecting Tuberculosis Based On Observed Manifestations Using Supervised Machine Learning."
- [6] S. Zhen, Montgomery, "Tuberculosis Dataset", Kaggle Open Machine Learning Datasets", 2020.
- [7] N.Walia, S.K.Tiwari, R.Malhotra, "Design and Identification of Tuberculosis using Fuzzy Based Decision Support System". Advances in Computer Science and Information Technology, Vol.2, Issue 8, pp.57-62, 2015. ISSN: 2393-9915.
- [8] Kouchaki, Samaneh, et al. "Application of machine learning techniques to tuberculosis drug resistance analysis." Bioinformatics 35.13 (2019): 2276-2282..
- [9] N.Walia, S.K.Tiwari, R.Malhotra, "Design and Identification of Tuberculosis using Fuzzy Based Decision Support System". Advances in Computer Science and Information Technology (ACSIT), Vol.2, Issue 8, pp. 57-62, April-June, 2015. Print ISSN: 2393-9907; Online ISSN: 2393-9915.
- [10] N.H. Phuong , H.H. Dang, N.R. Prasad, "Developing Supporting Expert System for Lung-Disease Diagnosis Using Fuzzy Logic". Biomedical SoftComputing and Human Sciences, Vo1.5, Issue 2, pp.37-44, 2000.