

International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

Volume 2, Issue 6, June 2022

## Diagnosis of Polycystic Ovary Syndrome using Machine Learning Algorithms

Mr. Abdul Khadar A<sup>1</sup>, Shreasta M S<sup>2</sup>, Vani N<sup>3</sup>, Vathsala K R<sup>4</sup>, Vidhya Shree V N<sup>5</sup>

Assistant Professor, Department of Information Science and Engineering<sup>1</sup> Students, Department of Information Science and Engineering<sup>2,3,4,5</sup> S J C Institute of Technology, Chickballapur, Karnataka, India

Abstract: Artificial intelligence can be used to manage enormous amount of clinical data with great accuracy and precision in healthcare systems for diagnostic reasons. we used machine learning algorithms such as AdaBoost, Gradient Boosting, KNN, Random Forest, and Logistic Regression to diagnose PCOS based on patient clinical data. The data was analysed, and the algorithms' accuracy and precision were validated. The Random Forest algorithm in the diagnosis of PCOS on given data has the maximum accuracy, i.e., 96 percent, according to the validation metrics.

Keywords: Polycystic Ovarian Syndrome, K-Nearest Neighbour, Random Forest, Logistic Regression.

## REFERENCES

- V. Deepika, "Applications of Artificial Intelligence Techniques in Polycystic ovarian syndrome Diagnosis," J. Adv. Res. Technol. Manag. Sci., vol. 1, no. 3, pp. 59–63, 2019, doi: 10.1007/978-981-13-2640-0.
- [2]. A. Saravanan and S. Sathiamoorthy "Detection of Polycystic Ovarian Syndrome" pp 369-374, 2015.
- [3]. M. P. Lauritsen, P. F. Svendsen, and A. N. Andersen, Ugeskr. Laeger, vol. 181, no. pp. 671–679, 2019, doi: 10.1016/S1701-2163(16)32915-2.Diagnostic.
- [4]. www.kaggle.com/prasoonkottarathil/polycystic-ovary-syndrome-pcos. last accessed On 5 May 2020
- [5]. T. Williams, "Diagnosis and Treatment of Polycystic Ovary Syndrome," Jul. 2016. Accessed: Jul. 25, 2020
- [6]. R. S. Legro, "Polycystic Ovary Syndrome and Endocr. Rev., vol. 24, no. 3, pp. 302–312, Jun. 2003, doi: 10.1210/er.2003-0004.
- [7]. Cardiovascular Disease: A Premature Association?," Ovary Syndrome," Jul. 2016. Accessed: Jul. 25, 2020. [Online]. Available: