**Data Analysis Model to Help Reveal Potential Infertility Treatments.**

**(Draft-1)**

P. Rupsa1, Subhashree Darshana2, Adyasha Dash3, Sanjeeb Tiwary4

1School of Computer Engineering, KIIT-DU, Bhubaneswar

[potnururupsa11@gmail.com](mailto:potnururupsa11@gmail.com)

2School of Computer Engineering, KIIT-DU, Bhubaneswar

[subhashree.darshanafcs@kiit.ac.in](mailto:subhashree.darshanafcs@kiit.ac.in)

3School of Computer Engineering, KIIT-DU, Bhubaneswar

adyasha.dashfcs@kiit.ac.in

4School of Computer Engineering, KIIT-DU, Bhubaneswar

[Sanjeetiwary9006@gmail.com](mailto:Sanjeetiwary9006@gmail.com)

**ABSTRACT**

Infertility in the modern society poses pressing issues to couples usually rooting back to family. Infertility in women is mainly caused by PCOS(polycystic ovary syndrome) and abnormal sperm production in men is due to undescended testicles, genetic defects, infections such as chlamydia, gonorrhea or HIV. Infertile couples usually demand the success of treatment process and they have the right to do so, it is cost effective. Treatment methods available today are usually very expensive and cost is a major factor for these couples. We have used machine learning concepts in this paper to determine potential infertility treatments.

Keywords:Infertility,

**Section 1**

**INTRODUCTION**

* For a long time infertility was directly linked with problems in the male/female reproductive systems and treatments were directly linked to the same.
* As it turns out problems in the reproductive system aren't the only cause for infertility. It may also be caused due to hormone imbalances and health problems(Diabetes etc.).
* Infertility treatments are usually expensive and the options for treatments should be presented to couples as per their budget.
* Some previously unaccounted factors can be weighed in while calculation success rate/causes/treatments.
* It is important to keep the treatment short and avoid complications that can harm the patient.
* New approaches in infertility treatment include saving and freezing sperm, oocyte and embryo.
* Recently, prediction models for infertility treatment have been proposed and designed in various countries like Europe and America.
* PCOS in females is associated with elevated levels of insulin in blood. In this study we have taken into account the level of different enzymes.
* In PCOS, ovulation, pregnancy and live birth are typically analyzed separately, few women progress to each stage and only a small percentage reach live birth.
* We aim to use available data and help improve chances of infertility treatment using AI models.

**Section 2**

**2.1 RELATED WORKS**