IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
Volume 2, Issue 1, May 2022
Impact Factor: 6.252

Diabetes Prediction using Artificial Intelligence and Machine Learning

R. A. Jamadar[1], Atharv Damle[2], Om Patil[3], Prajwal Zarekar[4]
Department of Information Technology[1,2,3,4]
AISSMS Institute of Information Technology, Pune, Maharashtra, India

Abstract: *Diabetes is a fatal disease and its developments must be monitored continuously. If one is affected with this disease, it may stay throughout one's life, depending upon the stage and severity. Furthermore, having too much glucose in the blood can cause health issues including kidney disease, heart disease, stroke, eye problems, dental disease, foot problems, nerve damage. So, one must take steps to avoid these complications and oversee one's diabetes. The most common type of diabetes is type 1 and type 2. In this type of diabetes, the patient faces problems like the body is not able to produce or use insulin. In other kinds of diabetes, like gestational diabetes, which crop up during pregnancy. Gestational diabetes causes high blood sugar that can affect pregnant women's and baby's health. For diagnoses and administration of diabetes various Machine Learning and Data Mining methods are used. This study focuses on new developments in machine learning which have made significant impacts in the detection and diagnosis of diabetes. In this study, the machine learning algorithms are used to classify diabetes patients.*

Keywords: Diabetes, Classification, Prediction, Machine learning, Accuracy

REFERENCES

[1]. AishwaryaMujumdara, Dr. Vaidehi V, "Diabetes Prediction using Machine Learning Techniques".
[2]. International Conference on Recent Trends in Advanced Computing 2019, Icrtac.
[3]. M.Rajeswari, Dr.P. Prabhu, "A Review of Diabetic Prediction Using Machine Learning Techniques". International Journal of Engineering and Techniques - Volume 5 Issue 4, July 2019
[4]. AakanshaRathore, Simran Chauhan, SakshiGujral, "Detecting and Predicting Diabetes Using Supervised Learning: An Approach towards Better Healthcare for Women", Volume 8, No. 5, May-June 2017, ISSN No. 0976-5697, Available Online at www.ijarcs.info.
[5]. S M Hasan Mahmud, Md Altab Hossin, Md. Razu Ahmed, Sheak Rashed HaiderNoori, Md Nazirul Islam Sarkar, "Machine Learning Based Unified Framework for DiabetesPrediction", BDET 2018, August 25–27, 2018, Chengdu, China. © 2018 Association for Computing Machinery. ACM ISBN 978-1-4503-6582- 6/18/08
[6]. Mahmoud Heydari & Mehdi Teimouri & Zainabolhoda Heshmati & Seyed Mohammad Alavinia, "Comparison of various classification algorithms in the diagnosis of type 2 diabetes in Iran". © Research Society for Study of Diabetes in India 2015
[7]. Omprakash Chandrakar, Dr. Jatinderkumar R. Saini, "Development of Indian Weighted Diabetic Risk Score (IWDRS) using Machine Learning Techniques for Type-2 Diabetes"
[8]. Igor Kononenka, "Machine learning for medical diagnosis history, state of art and perspective"
[9]. Emanuele Frontoni, Luca Romeo, Michele Bernardini, Sara Moccia, Lucia Migliorelli, Marina Paolanti, Alessandro Ferri, Paolo Misericordia, Adriano Mancini, Primo Zingaretti, "A Decision Support System for Diabetes Chronic Care Models Based on General Practitioner Engagement and EHR Data Sharing"
[10]. B. Tamilvanan, Dr. V. Murali Bhaskaran, "An Experimental Study of Diabetes Disease Prediction System Using Classification Techniques", IOSR Journal of Computer Engineering (IOSR-JCE), e-ISSN: 2278-0661, p-ISSN: 2278-8727, Volume 19, Issue 1, Ver. IV (Jan.-Feb. 2017), PP 39-44, www.iosrjournals.org.
[11]. Ashok Kumar Dwivedi "Analysis of computational intelligence techniques for diabetes mellitus prediction." © The Natural Computing Applications Forum 2017
[12]. DeeptiSisodia, Dilip Singh Sisodia," Prediction of Diabetes Using Classification Algorithm",

IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
Volume 2, Issue 1, May 2022
Impact Factor: 6.252

[13]. www.elsevier.com/locate/procedia, Procedia computer science 132(2018) 1578-1585.