IEEE.org   IEEE *Xplore*   IEEE SA   IEEE Spectrum   More Sites

Donate   Cart   Create Account   Personal Sign In

Downl
F DF

Browse ⌄   My Settings ⌄   Help ⌄

Access provided by:
Vels Institute of Science
Technology & Advanced
Studies (VISTAS)

Sign Out

Access provided by:
Vels Institute of Science
Technology & Advanced
Studies (VISTAS)

Sign Out

All   ⌄

🔍
ADVANCED SEARCH

Conferences > 2020 3rd International Confer... ❓

Survey on Diagnosis of Chronic Kidney Disease UsingMachine Learning Algorithms

Publisher: IEEE | Cite This | 📄 PDF

A. Vijayalakshmi ; V. Sumalatha   **All Authors** •••

3
Cites in
Papers

175
Full
Text Views

Ⓡ 🔗 © 📁 🔔

Alerts

Manage Content Alerts

Add to Citation Alerts

Abstract:
Kidney Damage is otherwise known as Chronic Kidney Disease (CKD) which is a common term for various heterogeneous diseases in the kidneys. There are many cases with an im... **View more**

⌄ **Metadata**
Abstract:
Kidney Damage is otherwise known as Chronic Kidney Disease (CKD) which is a common term for various heterogeneous diseases in the kidneys. There are many cases with an imprecise diagnosis and extensively organized medical procedures may lead to many difficulties in the patient health. Hence, it is advisable to go for early diagnosis and prediction of kidney disease. The main aim of this research is to predict whether the patient is affected with CKD or not whereas the Machine Learning (ML) classification algorithms have been utilized to predict the value. The patient with CKD and non-CKD status can be predicted using various classification algorithms. This survey has discussed about various ML algorithms which utilized to diagnose kidney disease as well as the significant issues are explained briefly. Hence, this review about current study of ML applications in kidney disease is well recognized by clinicians and greatly enhances the clinical practice in future.

Document Sections

I. Introduction

II. Challenges of Medical Data Mining

III. Review on CKD using ML algorithm

IV. Comparison between ML algorithms based on accuracy

V. Conclusion

Authors

References

Citations

Keywords

Metrics

Downl
PDF

Contents

I. Introduction

One of the significant health concerns is kidney disease due to its widespread pathology influenced from obesity, aging, diabetes and depression. These conditions may raise prevalence. Based on the survey of 2015 worldwide burden of injuries, disease and risk factors, there are 750 million people suffer kidney disease by worldwide [1]. Kidney disease imposes enormous burden on society. A study in 2017, stage 3 CKD found that the annual cost about 1963 for an adult whereas stage 5 CKD found that the cost of 34,554 for a patient suffers hemodialysis [2]. Kidney disease happens whenever the kidneys cannot perform their roles effectively. Kidneys aren't any more able to eliminate waste products and additional water from the blood, resulting in numerous problems in the body. CKD [3] is renal activity over a span of few months or years. It is also characterized by more reduction in Glomerular Filtration Rate (GFR) which are lesser than 60 m per min per 1.73m2. Chronic diseases are India's foremostsource of mortality and morbidity. CKDs represent 60 per cent of all deaths around the world. Worldwide, 80% of expiries from chronic diseases ensued in many countries [2]. The National Kidney Foundation defines the various phases of CKD based on the occurrence for kidney problems and GFR, which would be a kidney function level indicator. CKD is in five phases. They are listed in table.1.

Sign in to Continue Reading

| Authors	⌄
References	⌄
Citations	⌄
Keywords	⌄
Metrics	⌄

More Like This

Chronic Kidney Disease Prediction based on Data Mining Method and Support Vector Machine
2022 IEEE 10th Conference on Systems, Process & Control (ICSPC)
Published: 2022

Support Vector Machine with Purified K-Means Clusters for Chronic Kidney Disease Detection
2018 2nd East Indonesia Conference on Computer and Information Technology (EIConCIT)
Published: 2018

Show More

Downl
PDF
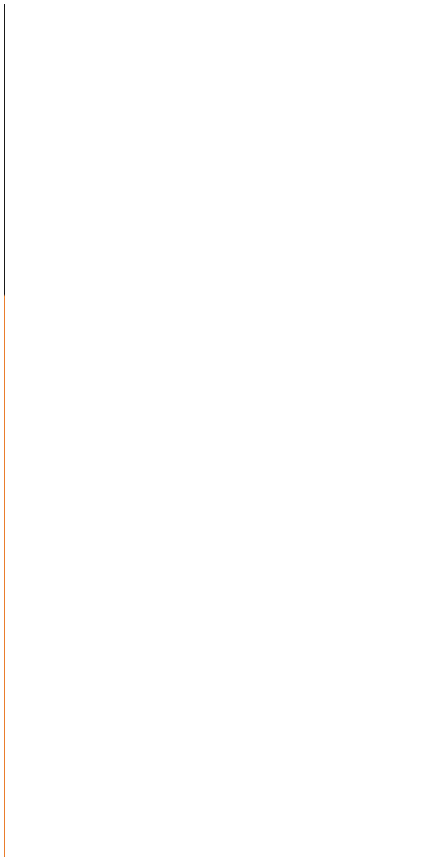
IEEE Personal Account

CHANGE
USERNAME/PASSWORD

Purchase Details

PAYMENT OPTIONS

VIEW PURCHASED
DOCUMENTS

Profile Information

COMMUNICATIONS
PREFERENCES

PROFESSION AND
EDUCATION

TECHNICAL INTERESTS

Need Help?

US & CANADA: +1 800
678 4333

WORLDWIDE: +1 732
981 0060

CONTACT & SUPPORT

Follow

f ⌾ in ▶

About IEEE *Xplore* | Contact Us | Help | Accessibility | Terms of Use | Nondiscrimination Policy | IEEE Ethics Reporting ⬈ | Sitemap |
IEEE Privacy Policy

A not-for-profit organization, IEEE is the world's largest technical professional organization dedicated to advancing technology for the benefit of
humanity.

IEEE Account

» Change Username/Password

» Update Address

Purchase Details

» Payment Options

» Order History

» View Purchased Documents

Profile Information

» Communications Preferences

» Profession and Education

» Technical Interests

Need Help?

Downl
PDF

» **US & Canada:** +1 800 678 4333

» **Worldwide:** +1 732 981 0060

» Contact & Support

About IEEE *Xplore* | Contact Us | Help | Accessibility | Terms of Use | Nondiscrimination Policy | Sitemap | Privacy & Opting Out of Cookies