Chronic Kidney Disease Prediction
Intelligent Data prediction system

A dissertation by

Mr. Himagaran Murugaiah

Supervised by

Mr. Namal Malalasena

Submitted in partial fulfilment of the requirements for the
BEng (Hons) in Software Engineering Degree
Department of Computing

April 2019

© The copyright for this project and all its associated products resides
with Informatics Institute of Technology
Chronic kidney disease is a long-term condition when kidneys slowly lose its ability to filter out waste from blood circulation. Several types of research on this deadly disease have been conducted and still lots of people are suffering from it. Some of the reasons for being affected by kidney illness are due to diabetes, blood in urine, hypertension, anemia and lack of clean drinking water. Unlike other diseases, kidney diseases often do not show any symptoms until they get advanced, so early detection and treatment can often keep chronic kidney disease from getting worse.

Huge amounts of data generated by healthcare transactions are too complex to be processed and analyzed manually. Data mining is an evolving research field in medical areas to identify diseases by examining big data to recognize patterns and solving problems. This work aims at finding a suitable data model that examines through medical data in predicting a person’s chance of being a victim of this disease and identify the correct stage of the disease through Glomerular filtration rate (GFR). The solution proposed will be beneficial for doctors and everyone who needs to examine their kidney status.

**Keywords:** chronic kidney disease, glomerular filtration rate, data mining, prediction.