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## (54) Title of the invention : SYSTEM AND METHOD FOR DETECTION OF KIDNEY DISEASE (71)Name of Applicant : 1)Chitkara University Address of Applicant : Chitkara University, Chandigarh-Patiala National Highway, Village Jhansla, Rajpura, Punjab - 140401, India. Patiala ------ -----:H04N0007180000, A61P0013120000, 2)Chitkara Innovation Incubator Foundation (51) International G06F0008650000, G10L0015260000, Name of Applicant : NA classification G10L0017000000 Address of Applicant : NA (86) International (72)Name of Inventor: :NA Application No 1)KAUR, Gurjinder :NA Filing Date Address of Applicant :Department of Electronics and (87) International Communication Engineering, Chitkara University, Chandigarh-: NA **Publication No** Patiala National Highway, Village Jhansla, Rajpura, Punjab -(61) Patent of Addition :NA 140401, India. Patiala -----to Application Number :NA 2)GARG, Meenu Filing Date Address of Applicant :Department of Electronics and (62) Divisional to Communication Engineering, Chitkara University, Chandigarh-:NA Application Number Patiala National Highway, Village Jhansla, Rajpura, Punjab -:NA Filing Date 140401, India. Patiala ------3)GUPTA, Sheifali Address of Applicant :Department of Electronics and

(57) Abstract :

The disclosed embodiments illustrate a system (100) and method (400) to detect kidney disease in a subject. The system includes an input device (102) to receive a set of images of kidney of a subject, and a processor (104). The processor (104) configured to receive a first signal, indicative of the set of images of the kidney, extract patches from each of the set of images, compare the extracted patches with a database to perform image classification and correspondingly separate glomerulus images and non-glomerulus images, segment the obtained glomerulus images to identify glomerulus, and determine whether the detected glomerulus is in a normal state or abnormal state, and upon detection of the abnormal state, one or more kidney diseases are identified in the subject, by comparing with the database; and store, the identified one or more kidney diseases on a server, wherein the server is accessible by one or more entities.

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