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# Leaf Biometrics Based Karyotyping of G-Band Chromosomes

**Somasundaram Devaraj*, V. R. Vijaykumar, Godwin Raj Soundrarajan, Sengottaiyan and Narmada**

***Department of Electronics and Communication Engineering Anna University Chennai, Regional centre, Coimbatore 641 047, Tamilnadu, India***

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**ABSTRACT** In the field of medical imaging,chromosome karyotyping plays the major role to diagnose the birth defect problems like Down syndrome, Turner syndrome. To detect and recognize these problems in early stage,it is necessary to analyze over the chromosome are necessary to karyotype. In previous methods, karyotyping analysis is done based on statistical measurement and feature based analysis. In the over headed chromosome images, the previous methods are insufficient to identify its pairs and when the chromosome twisted or overlapped over other chromosomes. Overlap occurs from the point of Centromere or from the endings of each arms of chromosome. In this paper, LEAF algorithm based method is used to identify the biometric points in each chromosome. In this method, identification of chromosome pairs is possible even in the chromosomes arm having tilt from the centromere. Here the primary parameter is Band gap between each chromosome band, and secondary parameters are different band lengths to endorse the pair of each chromosome.