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RESEARCH ARTICLE

A Robust DR Classification from Blood Vessel Features

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Abstract— A Diabetic Retinopathy (DR) is a condition occurring in persons with diabetes, which causes progressive damage to the retina that leads to blindness. Early detection of retinopathy in individuals with diabetes is critical in preventing visual loss. In this project prior Diabetic retinopathy diagnosis implement based on SVM classifier. To improve the classifier accuracy depends upon the retinal blood vessel features. For blood vessel extraction proposes a function based on the evaluation of measurable features describing retinal blood vasculature. Specifically, this proposal enables vascular structure assessment through its characterization as connected segments with measurable area and length. Thus, this function is sensitive to vasculature features such as connectivity, area and length, and supplements widely-used metrics based on contingency tables. The classification scheme proposed appears useful for characterizing overall retinopathy severity of patients on the basis of gradings of fundus photographs. The data presented may be of help in planning trials of treatment aimed at slowing the development or progression of retinopathy.

Key Terms: - Diabetic Retinopathy; SVM Classifier; quality evaluation function

Full Text: http://www.ijcsmc.com/docs/papers/April2013/V2I42013119.pdf