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**RAM N MOAHPATRA\*** ([ramm1627@gmail.com](mailto:ramm1627@gmail.com)), Mathematics Department, University of Central Florida, Orlando, FL 32816, and **RAM U VERMA** ([verma99@msn.com](mailto:verma99@msn.com)), Department of Mathematics, University of North Texas, Denton, TX 72601. *Mathematical Programming Based on Sufficient Optimality Conditions and Second Order Invex Functions.*

Based on a comprehensive second order generalization of invexities, which encompass most of the existing generalized invexity concepts in the literature, a wide range of parametric sufficient optimality conditions leading to the solvability for multiobjective fractional programming problems are established with some other related results. To the best of our knowledge, the results obtained seem to be most advanced on generalized higher order invexities. (Received September 23, 2015)