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Characterization of generalized univex functions

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Abstract - In this paper, under some appropriate conditions, we establish that (i) if the gradient of a function is (strictly)pseudo-invex monotone, then the function is (strictly) pseudo-univex; (ii) if the gradient of a function is quasi-invex monotone, then the function is quasi-univex and (iii) if the gradient of a function is strong pseudo-invex monotone, then the function is strong pseudo-univex. These results extend several known results in the literature.

Key words and phrases : Generalized invex monotonicity; generalized univex functions; mathematical programming.

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