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Hermite-Hadamard type inequality for certain schur convex functions

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In the presentation we will investigate symmetric, continuous functions whose domain is in \mathbb{R}^n that satisfies a Hermite-Hadamard type inequality. In the main result we prove that such functions are necessarily Jensen-convex. We also present a Korovkin-type approximation theorem, which plays the key role in the proof of our main theorem.