عنوان مقاله:

Modeling of saving energy on nanofluids

محل انتشار:

سومین کنفرانس بین المللی رویکردهای نوین در نگهداشت انرژی (سال: 1392)

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نویسندگان:

M. Vakili - *Shahid Bahonar University of Kerman*

M. Hemmati - *Sirjan University of technology*

M. Azadpour

خلاصه مقاله:

In this study, neural network method was employed to estimate saving energy on nanofluids. Different operational parameters such as heat flux, thermal conductivity of fluids, nanoparticle concentration and flow Reynolds number were performed to measure the effects of nanofluids on saving energy. In order to model process, these operational parameters introduce to artificial neural network as inputs. Static factors such as mean square error and correlation coefficient were determined and indicate high performance of ANN in modeling this process. Addition of nanoparticles into the base fluid, enhances the saving energy and this effect is more considerable in base fluids with lower thermal conductivity and flow with higher Reynolds number and higher heat fluxes.

کلمات کلیدی:

Nanofluids; saving energy; artificial neural networks; nanoparticles

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