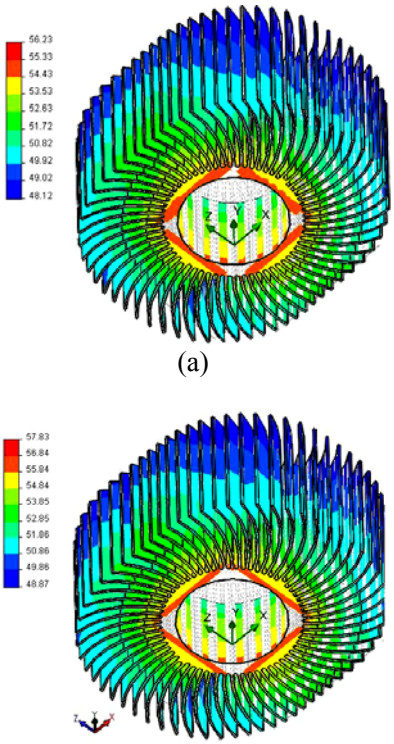

Fig .8 Grid independent solution: Temperature distributions through the heat sink, (3D).

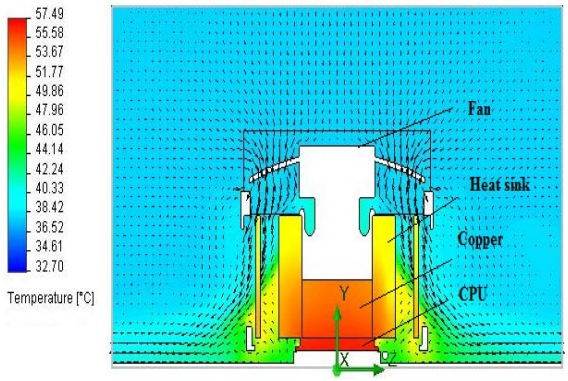

Fig .9 Temperature field and velocity vectors distribution

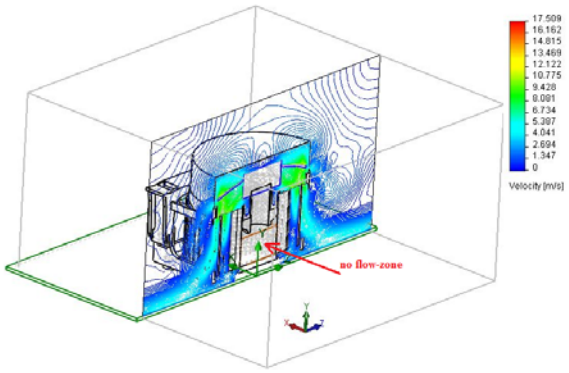

Fig. 10 Velocity vectors distribution

CONCLUSION

The important conclusions that can be drawn from the present study are given below:

(1) In this paper, the heat sink with copper core were investigated using ANSYS Fluent and the results were acceptable.

(2) The CPU case temperature has a linear variation with power dissipation. The heat sink temperature difference results it shows the good correlation

APPENDIX

CFD	Computational Fluid Dynamics
CPU	Computer Processing Unit
L	Characteristic length, m.
Gr	Grashof Number.
Nu	Nusselt Number.
Pr	Prandtl Number.
R	Ideal gas constant.
R	Thermal resistance, (m2 · K)/W.
Ra	Rayleigh Number.
Re	Reynolds Number.
μ_{eff}	Effective viscosity
k_{eff}	Effective thermal diffusivity
T	Temperature

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