

Mario Misale

Full professor

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Education and training

1981

Mechanical Engineering

Academic experience

1983 - 1992

University Researcher

DINE

1992 - 2004

Associate professor

DIPTM

2004 - ONGOING

Full professor

DIME

Language skills

English

Independent

Research interests

Areas of his researches are:

NATURAL CIRCULATION IN SIMPLE LOOPS. In particular he studied the transient behavior of a rectangular loop. It consists of two heat section (lower heated and upper cooled) and two adiabatic vertical legs. The study is conducted utilizing three fluids: water, water-glycerol mixture, and FC-43. The influence of pressure drops on the stability behavior of the system is analyzing. Numerical simulations using codes (Fluent 6.1, Ansys 6.0 , Relap5 Mod3.2 and Cathare V1.3U) have been performed. Moreover, the influence of the gravity on the thermo-hydraulic behavior is in progress.

DIRECT IMMERSION COOLING OF ELECTRONIC COMPONENTS BY DIELECTRIC FLUIDS. The studies are performed by mean an experimental apparatus that allows working at different pressures. The experiments were performed by different dielectric fluids (HT-55, HT-70, FC-72, FC-3284, and R113) at different pressures. Now he is studying boiling process on some enhanced surfaces realized by micro pin when they are confined by unheated wall.

NATURAL AIR COOLING OF ELECTRONIC COMPONENTS PLACED INTO VENTILATED CABINET. In particular he studied the influence of some parameters such as spacing between the electronic cards, the location of the inlet and outlet vents, and the size and the shape of the vents. A practical formula for the preliminary thermal design of ventilated enclosures was proposed

MEASUREMENT OF THE TOTAL NORMAL EMITTANCE OF METALLIC AND NOT METALLIC MATERIALS. For different materials the total normal emittance was measured. In particular was investigated the influence of mechanical treatment such as sandblasting, turning, and milling. Furthermore, utilizing the electromagnetic theory, the radiative properties of thin films were evaluated.

Editorial activity

He is member of the Editorial Board of the “JP Journal of Heat and Mass Transfer”, (ISSN: 0973-5763).

He is member of the Editorial Board of the “Open Journal of Fluid Dynamics (OJFD)” (ISSN Print: 2165-3852 ISSN Online: 2165-3860)

He is member of the Editor in Chief – (Europe) (2016) of the “Journal of Fundamentals of Renewable Energy and Applications”

He is member of Editorial board of the (2016) “Journal of Robotic and Mechatronic Systems”, ISSN 2399-1550

He is member of Editorial board of the (2017) “Heat and Mass Transfer Research Journal”, Canadian Science and Research Group.

He is member of Editorial board of the (2017) “World Journal of Applied Engineering Research”