Organising institution	Università degli Studi di Padova Dipartimento di Ingegneria industriale - DII Prof. Davide Del Col
Visiting Professor	Mirco Magnini, University of Nottingham (United Kingdom)
Course Title and Description	**Computational Thermo-Fluid Dynamics simulations of single and two-phase flows with open source software** The aim of the project is to offer a seminar to introduce the students of the Master degree course in Energy Engineering to the computational thermo-fluid-dynamics with an open source software (OpenFOAM). This topic at the moment is not part of the master course in Energy engineering and so the seminar will be an important opportunity to know these new computational instruments. The seminar will last 8 hours, will be held in class by prof. Mirco Magnini and it will be structured into 4 lectures on the following topics: - introduction to OpenFOAM; heat transfer in conduction; - heat transfer in forced convection; - numerical simulation of two-phase flow (liquid to vapor) with VOF method (Volume of Fluid); - simulation of heat transfer processes and liquid-vapor phase-change processes (evaporation).
Period	16/05/2022 – 20/05/2022
Course Level	Master Degree Course in Energy Engineering