

## Industrial renewable heat

The industrial sector uses heat for many applications, including washing, cooking, sterilising, drying, preheating boiler feed water, viscosity control, and many other processes. Industrial heat makes up two-thirds of industrial energy demand and almost one-fifth of global energy consumption. It also constitutes most of the direct industrial CO<sub>2</sub> emitted each year, as the vast majority of industrial heat originates from fossil-fuel combustion.

<b>Period:</b>	Period 4
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<b>Educational management portal:</b>	moodle.unitus.it
<b>Objectives:</b>	The general objective of this module is to provide the students with theoretical and practical skills on the efficient production and usage of thermal energy in the industrial environment.
<b>Programme:</b>	Heat recovery in industrial environment; efficient heat production in industry, pinch analysis.
<b>Pre-requisites:</b>	Basic thermodynamics and heat transfer.
<b>Study material:</b>	<ul style="list-style-type: none"><li>● Lecture slides;</li><li>● Reading material;</li><li>● Additional literature handed out during the course / made available via Blackboard/Moodle</li></ul>