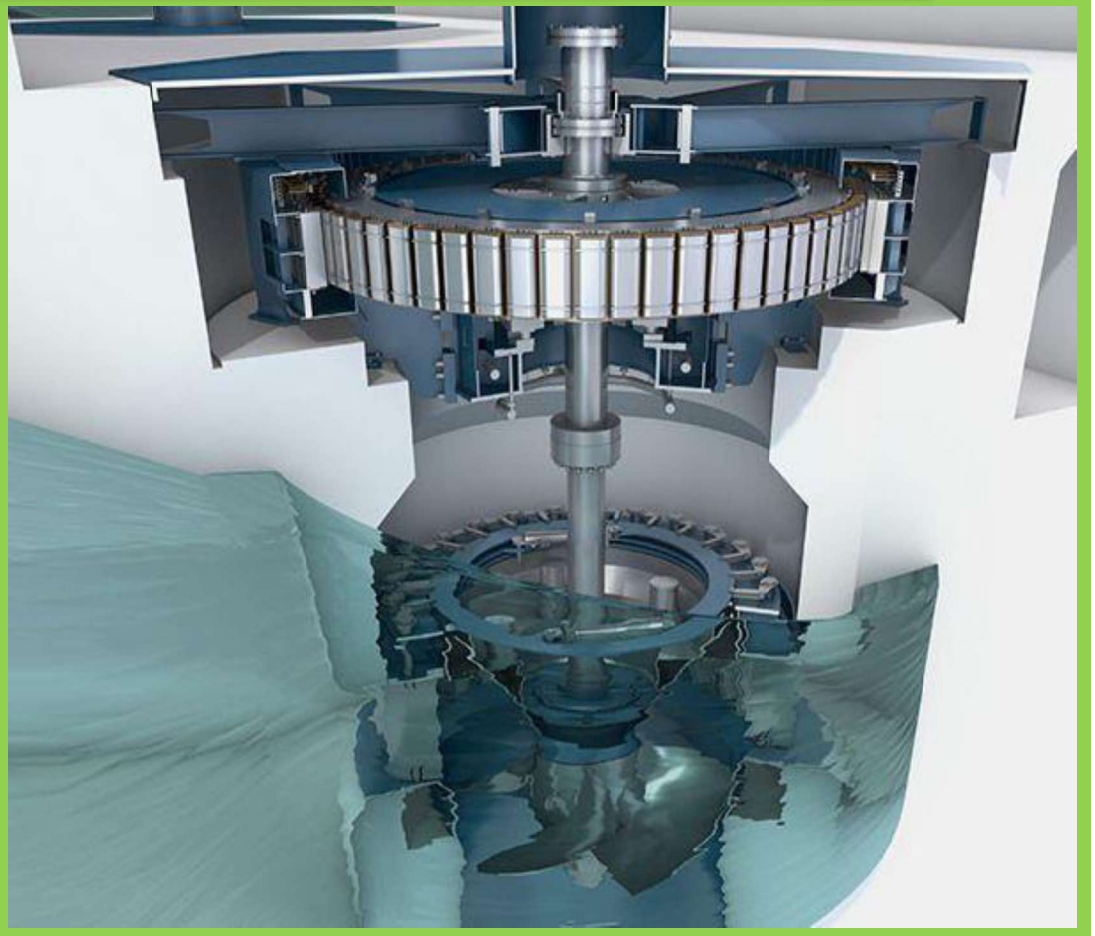
MEE-S405
Thermal Turbo-machinery & Compressible Flows



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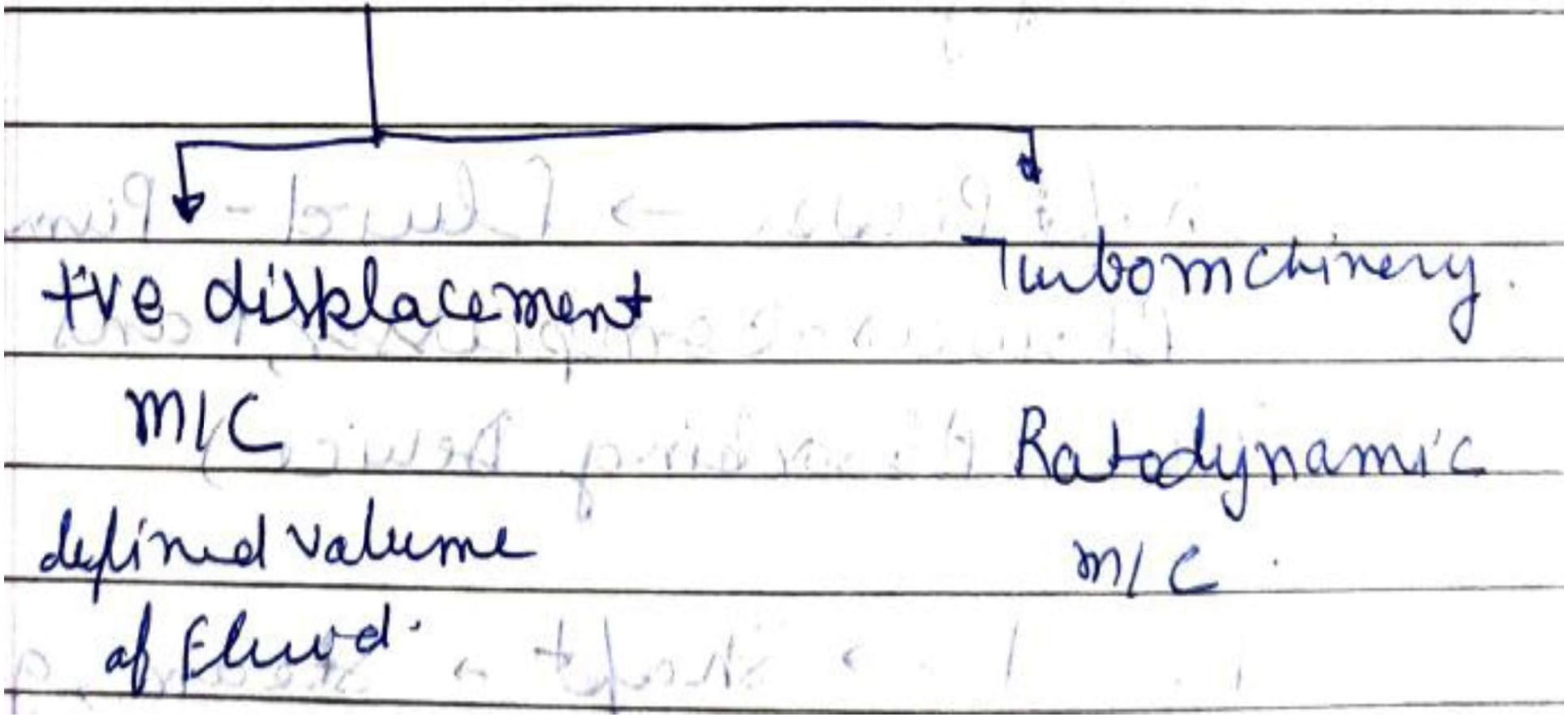
Fluid M/C

→ transfer the Energy stored by water or Fluid into mechanical Energy & vice versa.

Energy stored by water → Convert Hydraulic Energy ← Energy or mechanical Energy.

Fluid m/c

application of thermodynamics & fluid mechanics:



Energy Stored by Fluid → Potential Energy

→ K E

→ Internal Energy

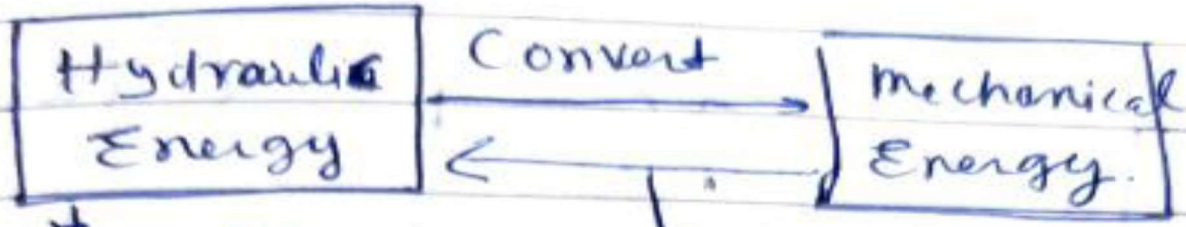
Increase the temp of fluid (Internal Energy)

Hydraulic Turbine,
gas turbine steam Turbine Wind turbine

Turbomachine is device where Energy is transferred Either from or to a continously Flowing fluid by the dynamic action of one or more rotating Blade rows.

Pump, Blowers compressor. Turbine. c

Turbine



Hydraulic Energy Stored by Fluid mass → Inter molecular Energy
→ Potential Energy
→ K.E

Mechanical Energy → (convert, generator) → Electrical Energy

Power Produce → Hydroelectric Power.

Greater (Turbine)

Hydraulic M/C which receives Energy.

or

Inlet Energy

Out let Energy

↑

By the Flowing Fluid.

Greater Pump.