Taguette highlights: Move a Step 5

The results of this study should be useful in CFD studies on the effects of roughness in complex geometries without the need for LES

and DNS.

Document: Thermofluid_Paper1 **Tags:** Move a Step 5

As the results obtained, we have observed that at rest significant values of current, voltage and electric power are obtained and these drop and stabilize quickly when the vehicle starts to move. This decrease is justified by the impact of the wind which cools the system. But the presence of the vortex tube compensates for this. Thus for a speed of 33.33 m/s the hot temperature is around 76.1 °C, the cold temperature is around 2.1 °C, the generated current is 0.7742A, the voltage is 46.85 V and the power is 36.27 W. The results with those of a validated mathematical modeling of the same system made it possible to establish a certain similarity in their evolutions according to the speed of the vehicle.

Document: Thermofluid_Paper2 **Tags:** Move a Step 5

These values show that the presence of the IL with chloride anion greatly improves the average lifetime of the charge carrier by around 250%, while IL with iodide anion decreased the lifetime by 32% as compared with the pristine perovskite sample. This finding renders the IL-Cl passivated perovskite films as a valuable resource in applications ranging from photoelectric to hydrogen generation devices.

Document: Thermofluid_Paper3 **Tags:** Move a Step 5

This article provides the overall design modification trend of CSP technology and compares their effectiveness which can help identify particular areas for increasing the performance of CSP design. Moreover, in the future, the techno-economic viability of deploying CSP can be assessed for pragmatic applications.

concentrates this energy to produce a useful form of energy in the form

Document: Thermofluid_Paper4 **Tags:** Move a Step 5

Consequently, it cannot be asserted that the higher thermal efficiency and net-work output are monopolized by the highest critical temperature of all mixed working fluids. Selecting a certain mixing ratio and the appropriate model (evaporator and condenser temperatures set as on the bubble and dew points) that matches the ORC application can assist in obtaining the highest thermal efficiency and net-work output.

Document: Thermofluid_Paper5 **Tags:** Move a Step 5

By operating the ejector within its on-design geometric and boundary conditions, the maximum entrainment ratio (ER) was achieved. The CFD models successfully identified and validated various flow phenomena, including double choke, single choke, and backflow, which were consistent with the experimental observations. Both the numerical models and experimental findings demonstrated that the modified ejector achieved an entrainment ratio of 1.06 under its design condition showing a 33.66% increase compared with that obtained using the baseline geometry. These results indicate the potential of the supersonic ejector as an alternative solution for BOG applications, emphasizing its efficacy in handling this industrial challenge.

Document: Thermofluid_Paper6 **Tags:** Move a Step 5

Still, it got decreases for viscous dissipation (Ec) against radiation. Skin friction profile decreased for increasing value of suction parameter against

Deborah number.

Document: Thermofluid_Paper7 **Tags:** Move a Step 5

The temperature profile falls for larger values of the suction parameter and rises for greater values of the thermal relaxation parameter and injection parameter. Entropy production develops when the magnetic parameter is improved. Bejan number was reduced in response to rising magnetic parameter values.

Document: Thermofluid_Paper8 **Tags:** Move a Step 5

The study’s Carbon emissions

findings add to the pool of knowledge by presenting fresh data on the connection between environmental factors EKC hypothesis

and developmental measures. These findings are crucial for policymakers and governmental agencies to focus on economic development without endangering environmental damage. India has to enact laws that support cleaner production practises and the growth of non-polluting sectors in order to uphold its commitment to sustainability.

It must also discourage CO2 emitting industries concurrently.

Document: Thermofluid_Paper9 **Tags:** Move a Step 5

Findings in this work offer strong support to the supposition that geometrical adaptions of microcellular structures can be used to modulate their effective thermal conductivity and that generalised values of empirical constants may be ambiguous to fully describe conduction heat transfer phenomena in microcellular structures. This approach may prove useful in the design of low-porosity metallic components for applications specific to conduction heat transfer.

Document: Thermofluid_Paper10 **Tags:** Move a Step 5