Cuk Converter

- Cuk Converter is a type of DC/DC converter that has an output voltage magnitude that is either greater than or less than the input voltage magnitude.

- A Cuk converter transforms a DC voltage at the input to a DC voltage at the output with reversed polarity. Compared to the Buck, Boost and Buck-Boost converters the Cuk converter uses an additional inductor and capacitor to store energy.

- Cuk converter is a inverting converter, so the output voltage of the converter will be in the negative with respect to the input voltage.
Cuk Converter Topology
Output Waveform
Conclusion

- Cuk converter is used for the voltage regulation for the Dc application systems.

- Cuk converter is used in hybrid solar-wind energy system as a regulator where input voltage depends on speed of wind and sun, inorder to make the output voltage as a constant source Cuk converter is used.

- Thus by using the Activate tool the Cuk Converter topology is implemented.