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WORLD'S BIGGEST

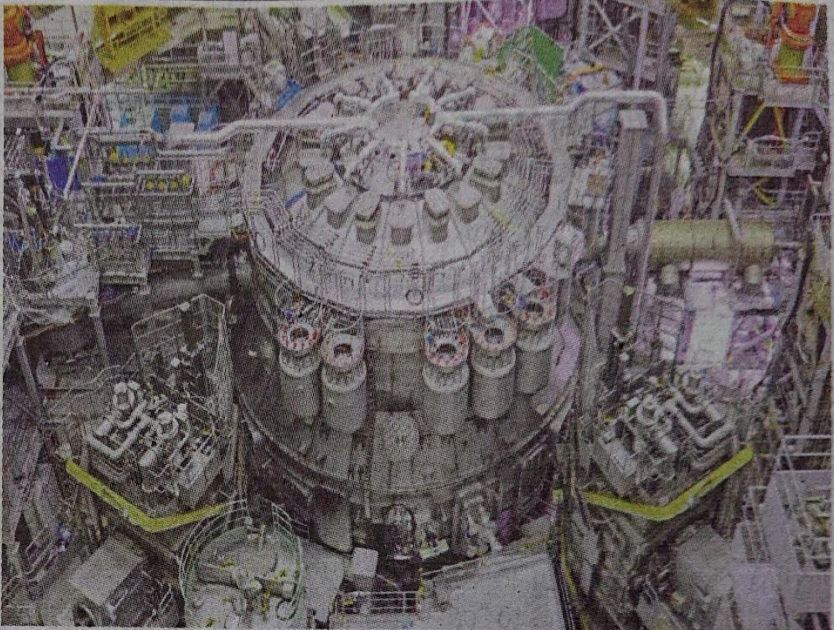
Japanese experimental nuke fusion reactor launched

TOKYO: The world's biggest experimental nuclear fusion reactor in operation was inaugurated in Japan yesterday, a technology in its infancy but billed by some as the answer to humanity's future energy needs.

Fusion differs from fission, the technique used in nuclear power plants, by fusing two atomic nuclei instead of splitting one.

The goal of the JT-60SA reactor is to investigate the feasibility of fusion as a safe, large-scale and carbon-free source of net energy, with more energy generated than is put into producing it.

The six-storey-high machine,



The JT-60SA is the world's biggest nuclear fusion reactor constructed to date. AFP PIC

in a hangar in Naka north of Tokyo here, comprises a donut-shaped "tokamak" vessel set to contain swirling plasma heated up to 200 million °C.

It is a joint project between the European Union and Japan, and is the forerunner for its big brother in France, the International Thermonuclear Experimental Reactor.

The ultimate aim of both projects is to coax hydrogen nuclei inside to fuse into one heavier element, helium, releasing energy in the form of light and heat, and mimicking the process that

takes place inside the Sun.

Sam Davis, deputy project leader for the JT-60SA, said the device would "bring us closer to fusion energy".

"It's the result of a collaboration between more than 500 scientists and engineers and more than 70 companies throughout Europe and Japan."

EU energy commissioner Kadri Simson said the JT-60SA was "the most advanced tokamak in the world", calling the start of operations "a milestone for fusion history". **AFP**

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