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Accelerator driven system –a solution to multiple problems of society

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One of the greatest challenges for nuclear energy is how to properly manage the highly radioactive waste generated during irradiation in nuclear reactors. Accelerator Driven Systems (ADSs) is one methods of addressing the transmutation of such high level nuclear waste. ADS or accelerator driven transmutation of waste (ATW) consists of a high power proton accelerator, a heavy metal spallation target that produces neutrons when bombarded by the high power beam, and a sub-critical core that is neutronicly coupled to the spallation target. This talk presents the world overview of nuclear energy that has proven to assist in dee-carbonization of energy sectors since the mid-1970s as well as the approaches to ADS being explored around the globe

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