Repeatable plasma discharges of maximum plasma current ~ 160 kA and discharge duration of ~250 ms has been obtained for the first time in the ADITYA.

The peak electron density $n_e(0) \sim 6 \times 10^{19} \text{ m}^{-3}$ and the max. electron temperature $(T_e) \sim 700 \text{ eV}$ have been achieved in these discharges.

Energy confinement times $(\tau_e)$ experimental compared with Neo-Alcator scaling showed, exp. confinement time almost $\approx 1.5$ times higher than that predicted by neo-ALCATOR scaling.

The Hugill plot for ADITYA operating parameters space showed that densities quite close to the Greenwald limit has been achieved.

Neon gas puff assisted radiative improved confinement mode has been observed in ADITYA. The energy confinement time improved by a factor of ~2 in discharges with Neon gas puff.

The current quench time is found to be inversely proportional to $q_{\text{edge}}$, which is due to higher growth of MHD islands in high $q_{\text{edge}}$ discharges.

Recently, ADITYA tokamak operated with limiter configuration has been upgraded into a state-of-art machine with divertor operation. First plasma operation in ADITYA-Upgrade will be initiated in near future.