

# Ten Years of Progress

The Iranian program has accomplished the following diagnostic up-grades to its IR-T1 Tokamak over the decade 2005-2015.

1. Installation of a new data acquisition system with 144 channels
2. Timing and triggering systems have been upgraded
3. Upgrading of 42-channels amplifier to amplify signals from the IR-T1 Tokamak
4. Design and fabrication of 40 channels integrator with time constant (1ms, 4ms, 10ms)
5. Design and calibration of 3 high-precision Rogowski coils to measure the main fields of the IR-T1 Tokamak
6. Replacement of all vacuum systems according

to the latest standard

7. Design and fabrication of limiter bias system for impressment of the bias voltage to plasma in the IR-T1 Tokamak
8. Installation of a high-purity hydrogen generator
9. Design and construction of a Feedback system to control the horizontal displacement of plasma in the IR-T1 Tokamak
10. Improvement of all high voltage relays
11. Design and fabrication of a movable Langmuir probe
12. Maintenance of resonance helical field (RHF) system in IR-T1 Tokamak
13. Design and fabrication of 16-channels Rack probe
14. Design and fabrication of a Movable limiter
15. Design and fabrication of Mach probe to measure plasma radial speed in IR-T1 Tokamak
16. Installation of Reseal Gas Analyzer (RGA)
17. Design and fabrication of Ball pen probe.