

**School of Physics
University of Hyderabad
Hyderabad**

Brief Outline of the Department

Since the beginning in the year 1977, the School of Physics with high academic credentials of its members was instrumental in attracting substantial financial support for research and hence wide recognition and several honours. An evaluation report published by DSIR on scientific productivity of 50 top class institutions including R&D laboratories in India ranks School of Physics as **Sixth** amongst all the Physics Schools / Departments in the country under the “**High Research Output and High Impact**” category. Recently the School has been selected by the UGC as a “**Center for Advanced Study**” to strengthen its teaching and research programmes.

Teaching & Research Activities

The School of Physics over the past 30 years has developed very high quality teaching and research programmes at the M.Sc. / M.Tech. and PhD levels respectively with student teacher ratio highly favorable for giving individual attention. The School is very well recognized both at the national and international levels in the areas of Condensed Matter / Solid State Physics, Laser Physics, Nonlinear / Quantum Optics, High Energy Physics, Materials / Electronic Sciences.

Facilities Created

X-ray diffractometer: consisting of a CPS 120 position sensitive detector, Cobalt X-ray tube, Ge monochromator, 8K Data acquisition system, HV power supply, SCA and other associated electronics, together with a 15 KVA UPS and closed cycle water chiller.

Condition: Working

RF Sputtering Unit: One Sputter cathode; Turbo molecular Pump based vacuum system, Capacitance manometer, Vacuum gauge, Gas Flow controllers (two), 300 Watt RF power supply, Substrate holder with rotation and heating arrangement up to 600 0C. *Condition: Working*

Fs Laser System & Upgradation: MAITAI, Model No. VFTIS, serial No: 2051 UFGS delivering 70 fs pulses at 80 MHz rep rate in the region 750-850 nm, with an average power of 1W. Regenerative amplifier: SPITFIRE, producing 100 fs at 1 KHz rep rate. This is pumped by EVOLUTION producing 120 ns and 527 nm pulses at a rep rate of 1 KHz, with an average power of 10W. (1) Millennia: Model 3941-M1BB, (2) Tsunami Mode Locked Ti: Sapphire laser with mode locked laser head, electronics unit and purge box, fs 720 – 980 nm Tsunami Pump assembly. *Condition: Working*

Funding:

X-ray diffractometer

RF Sputtering Unit

Fs Laser System & upgradation

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