

## **Major Achievements of Council of Scientific & Industrial Research (CSIR) during 2016**

Council of Scientific & Industrial Research (CSIR) is an autonomous body under the Ministry of Science and Technology and the largest research and development (R&D) organization in India.

\n\n

### **CSIR Achievements**

\n\n

\n

- [CSIR's Global positioning](#) - CSIR has been ranked 12<sup>th</sup> in the world amongst the government institutions in the world, according to 2016 report of the Scimago Institutions Rankings.

\n

\n\n

### **Inventions in Strategic Sector**

\n\n

\n

- [Drishti transmissometer](#) - A visibility measuring system provides information to pilots on visibility for soft landing and take-off operation.

\n

- [Head-Up-Display \(HUD\)](#) - It is developed for Indian Light Combat Aircraft, Tejas to aid the pilot in flying the aircraft and critical maneuvers include weapon training.

\n

- [Indigenous Gyrotron](#) - Design and Development of Gyrotron for nuclear fusion reactor.

\n

\n\n

### **Energy and Environment sector**

\n\n

\n

- [Solar tree](#) – designed to occupy minimum space to produce clean power.  
\n
- [Lithium Ion Battery](#) – India’s first lithium ion battery fabrication facility based on indigenous novel materials has been established.  
\n

\n\n

## **Value added Agriculture**

\n\n

- [Samba Mahsuri Rice Variety](#) – In collaboration with ICAR, an improved bacterial blight resistant Samba Mahsuri variety has been developed.  
\n
- [Rice Cultivar \(Muktashree\)](#) – A rice variety which restricts assimilation of Arsenic.  
\n
- [White-fly resistant Cotton Variety](#) – Development of transgenic cotton line which is resistant to whiteflies.  
\n

\n\n

## **Healthcare**

\n\n

- [JD Vaccine for Farm Animals](#) – Vaccine developed for Johne’s disease affecting sheep, goat, cow and buffalo so as to immunize them and increase milk and meat production.  
\n
- [Plasma Gelsolin Diagnostic kit](#) to diagnose pre-mature birth and sepsis related deaths.  
\n
- [GOMED](#) – Genomics and other omics technologies for Enabling Medical Decision has been developed which provides a platform of disease genomics to solve clinical problems.  
\n

\n\n

## **Food & Nutrition**

\n\n

\n

- [Ksheer-Scanner](#) - A new technical invention to detect the level of milk adulteration and adulterants.  
\n
- [Anti-obesity DAG oil](#) - oil enriched with Diacylglycerol (DAG) instead of conventional triacylglycerol (TAG).  
\n

\n\n

## **Waste to Wealth**

\n\n

- Non-toxic radiation shielding materials utilizing industrial waste like red mud (from aluminium industries) and fly ash (Thermal power plants) for application in diagnostic X-Ray rooms.  
\n

\n\n

\n**Category: Mains | GS-III | Science and Technology**

\n\n

**Source: PIB**

\n\n

\n\n

\n\n

\n