

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.

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CSIR Achievements

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

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Inventions in Strategic Sector

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

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- [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.

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

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Energy and Environment sector

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- **Solar tree** - designed to occupy minimum space to produce clean power.
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- **Lithium Ion Battery** - India's first lithium ion battery fabrication facility based on indigenous novel materials has been established.
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Value added Agriculture

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

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- **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.
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- **Plasma Gelsolin Diagnostic kit** to diagnose pre-mature birth and sepsis related deaths.
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- **GOMED** - Genomics and other omics technologies for Enabling Medical Decision has been developed which provides a platform of disease genomics to solve clinical problems.
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Food & Nutrition

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- **Ksheer-Scanner** - A new technical invention to detect the level of milk adulteration and adulterants.
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- **Anti-obesity DAG oil** - oil enriched with Diacylglycerol (DAG) instead of conventional triacylglycerol (TAG).
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Waste to Wealth

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

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Source: PIB

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