

Prelim Bits 21-08-2018

4D Printing

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- Scientists have successfully developed the world's first 4D printing for ceramics.

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- It can be used to create complex, shape-changing objects.

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- 4D printing is conventional 3D printing combined with the additional element of **time as the 4th dimension**.

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- The 4D printed objects can re-shape or self-assemble themselves over time with external stimuli, such as mechanical force, temperature, or a magnetic field.

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- The existing 3D-printed ceramic productions are usually difficult to deform and hinder the production of ceramics with complex shapes.

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- A novel ceramic ink was developed to stretch the ceramic products beyond its initial length and allow complex shapes with heat treatment.

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Pradhan Mantri Awas Yojana

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- PMAY aims at helping people below the poverty-line (BPL) in construction of dwelling units and upgradation of existing unserviceable kutcha houses through assistance in the form of full grant.

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- Government will soon introduce provision of 'lock-in' period of five years for the houses purchased under PMAY.

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- Those who have purchased houses will not be able to sell properties within 5 years of buying to avoid the misuse of the scheme.

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- Beneficiaries are people belonging to SCs/STs, freed bonded labourers and non-SC/ST categories, widows or next-of-kin of defence personnel killed in action, ex-servicemen and retired members of the paramilitary forces, Disabled persons and Minorities.
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- Under **PMAY - Gramin**, Government aims to construct 1 crore pucca (permanent) houses for the rural poor by 2019.
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- Beneficiaries would be chosen based on the according to data taken from the Socio-Economic Caste Census of 2011.
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- Under **PMAY - Urban**, Government envisions “Housing for All” by 2022.
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- Beneficiaries - Urban poor who does not own a pucca house, Economically Weaker Section (EWS), Middle Income Groups (MIG) and Lower Income Groups (LIG).
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- Credit Linked Subsidy Scheme is an interest subsidy available to a loan amounts up to 12 lakhs at the rate of 4% (6 to 9 lakhs) and 3% (9 to 12 lakhs).
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- It is for purchase/construction/extension/improvement of house to cater EWS/LIG/MIG.
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BIMSTEC

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- Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC) is an international organisation involving a group of countries in South Asia and South East Asia.
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- Bangladesh, India, Myanmar, Sri Lanka, Thailand, Bhutan and Nepal are its members.
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- Its headquarters is in Dhaka, Bangladesh.
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- The main objective of BIMSTEC is technological and economic co-operation among south Asian and south east Asian countries along the coast of the Bay of Bengal.
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- Commerce, investment, technology, tourism, human resource development,

agriculture, fisheries, transport and communication, textiles, leather etc. have been included in it.

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- It uses the alphabetical order for the Chairmanship. Accordingly, Nepal formally took over the new Chairmanship as on 2014.

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- Its 2018 summit is going to be held in Kathmandu.

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- The previous summit was held in Myanmar in 2014.

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- Free Trade Agreement among the members is yet to be finalised.

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NABH Nirman Scheme

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- NABH (NextGen Airports for BHarat) Nirman is an initiative by the Ministry of Civil Aviation.

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- Under the scheme, the government proposed to expand airport capacity by more than five times to handle a billion trips a year.

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- The three aspects of NABH Nirman are building of airport capacity through,\n

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i. fair and equitable land acquisition,

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ii. long-term master plan for airport and regional development,

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iii. balanced economics for all stakeholders

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Funding for National Calamity

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- There is no provision in the law or rules for the government to designate a disaster as a “national calamity”.

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- The funding for disaster relief are governed by the National Disaster Management Policy.
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- As per the policy, the State governments have to provide disaster relief from their respective State Disaster Response Funds (SDRFs).
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- Additional assistance will be provided from the National Disaster Response Fund (NDRF) only for a “calamity of severe nature”.
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- Click [here](#) to know the criteria to define calamity of severe nature.
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- **NDRF** - The NDRF is funded through a National Calamity Contingent Duty levied under GST for selected goods and contribution from any person or institutions.
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- **SDRF** - It is contributed by the Union government and the respective State governments in a 75:25 ratio for general category States and 90:10 for Special Category States.
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- The allocation of the SDRF for each State is done by the Finance Commission, and the Centre contributes its specified share each financial year.
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Source: The Hindu, PIB, Business Standard

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