

TABLE OF CONTENTS

1. [Digital India](#)
2. [C-DAC partners with MosChip and Socionext](#)
3. [Guidelines for Utilization of Steel Slag in Road Construction](#)

1. Digital India

Syllabus: GS-2, Govt schemes and programmes

Prelims/Mains: Digital India Initiative

Context:

Nine years of Digital India.

Read more about the [Digital India Initiative](#) in the linked article.

2. C-DAC partners with MosChip and Socionext

Syllabus: GS-3, Science and Technology

Prelims: C-DAC

Mains: Supercomputing technology

Context:

C-DAC partners with MosChip and Socionext to design and develop a High-Performance Computing Processor AUM based on Arm architecture.

Details:

- C-DAC is collaborating with the consortium of MosChip Technologies, India and Socionext Inc., Japan for the design & development of an indigenous HPC Processor

AUM, based on the high-performance Arm Neoverse™ V2 CPU platform, and incorporates advanced packaging technology.

- This approach allows them to retain ownership of unique differentiators, providing a significant competitive edge.
- C-DAC is working towards its complete indigenization & in this direction has developed indigenous compute node RUDRA, Trinetra-Interconnect and System Software stack.
- Further, for complete indigenization of HPC system development, C-DAC is designing an indigenous HPC Processor AUM.
- C-DAC's indigenization efforts have reached more than 50% with server nodes, interconnects, and system software stack. Now for complete indigenization, they are aiming to develop an indigenous HPC Processor AUM.

Also read: [National Supercomputing Mission](#)

3. Guidelines for Utilization of Steel Slag in Road Construction

Syllabus: GS-3, Infrastructure

Prelims: Steel Slag

Mains: Steel Industry in India

Context:

International Conference on Steel Slag Road was held in New Delhi.

Details:

- The conference was jointly organized by CSIR-CRRI and PHDCCI.
- On the occasion, the Guidelines for Utilization and Processing of Steel Slag as Processed Steel Slag Aggregates in Road Construction was released.
- The adoption of these guidelines for the construction and maintenance of road networks using steel slag is expected to bring numerous benefits, including cost savings, reduced environmental impact and improved road performance.
- Dr. Manoranjan Parida, Director CRRI, and Shri Satish Pandey, Principal Scientist and inventor of steel slag road technology were congratulated for their exemplary contributions to the development and implementation of this technology on a pan-India basis.

- The Ministry of Steel had sponsored a major R&D project to CSIR-Central Road Research Institute to facilitate the large-scale utilization of steel slag as a substitute for natural aggregates in road construction in line with the “waste to wealth” principle.
- Significance:
 - Around 1.8 billion tonnes of natural aggregates are required every year in the country for construction and maintenance works.
 - The utilization of processed steel slag aggregates in construction and maintenance work as a substitute for natural aggregates will preserve our ecosystem from unsustainable quarrying and mining.

Steel Slag: Steel slag is a solid waste generated in the process of steel making and is mainly composed of oxides of calcium, iron, silicon, magnesium, and some other elements.

